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1 SUPERIOR COURT OF THE STATE OF CALIFORNIA
2 COUNTY OF SAN FRANCISCO
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4 LESLIE WHITELEY AND LEONARD
WHITELEY,
5
6 Plaintiffs,
7
8 vs. No. 303184
9 RAYBESTOS-MANHATTAN, et al.,
10
11 Defendants.
12

13 DEPOSITION OF
14 CHARLES J. CICCHETTI, Ph.D.
15
16 Tuesday, November 30, 1999
17
18
19
20

21 REPORTED BY: MARK W. BANTA, CSR #6034
22
23

24 TOOKER & ANTZ
25 COURT REPORTING & VIDEO SERVICES
818 Mission Street, Fifth Floor
San Francisco, California 94103

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1 BE IT REMEMBERED on Tuesday, November 30, 1999,
2 commencing at 2:19 p.m. thereof, at the Offices of Howard,
3 Rice, Nemerovski, Canady, Falk & Rabkin, Three Embarcadero
4 Center, Seventh Floor, San Francisco, California, before me,
5 MARK W. BANTA, Certified Shorthand Reporter No. 6034 for the
6 State of California, personally appeared
7 CHARLES J. CICCHETTI, Ph.D.,
8 called as a witness, who having been first duly sworn, was
9 examined and interrogated as hereinafter set forth.
10 ---oOo---
11 A P P E A R A N C E S
12 WARTNICK, CHABER, HAROWITZ, SMITH & TIGERMAN, 101
13 California Street, Suite 2200, San Francisco, California
14 94111, represented by ROBERT BROWN, Attorney at Law,
15 appeared as counsel on behalf of the Plaintiffs.
16 HOWARD, RICE, NEMEROVSKI, CANADY, FALK & RABKIN,
17 Three Embarcadero Center, Seventh Floor, San Francisco,
18 California 94111, represented by ANNE MARIE EILERAAS,
19 Attorney at Law, appeared as counsel on behalf of the

20 Defendant R.J. Reynolds Tobacco Company.
21 SHOOK, HARDY & BACON, LLP, One Market Street,
22 Steuart Tower, Ninth Floor, represented by GERALD V. BARRON,
23 Attorney at Law, appeared as counsel on behalf of the
24 Defendant Philip Morris.
25

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1 (Exhibits 1 and 2 marked.)
2 EXAMINATION BY MR. BROWN
3 MR. BROWN: Q. Doctor, how do you pronounce your
4 name?
5 A. Cicchetti.
6 Q. Cicchetti. Dr. Cicchetti, we introduced before
7 the deposition started. On the record, I'll again tell you
8 my name is Bob Brown. I represent the plaintiffs in this
9 action. As I understand it, you've been retained as an
10 expert for one or more of the defendants? Is that correct?
11 A. Well, I've been retained by one of the law firms,
12 yes.
13 Q. Which law firm?
14 A. Womble Carlyle.
15 Q. Where are they located?
16 A. I believe their main office is in Winston-Salem,
17 North Carolina.
18 Q. And they must represent RJR?
19 A. I believe they do.
20 Q. Okay. Did you bring any of the documents that are
21 listed on Exhibit A of our notice, which has been marked
22 Exhibit 1?
23 A. I did.
24 Q. Okay. Would you let me see -- are they right in
25 front of you there?

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1 A. No, they're actually in this box over here.
2 MR. BROWN: There it is. I knew I brought it.
3 For the record, Exhibit 1 is a Notice of
4 Deposition and Exhibit 2 is the Designation of Expert
5 Witnesses that was filed and served by JR -- RJR.
6 MS. EILERAAS: Just for the record, we have some
7 objections that I believe are getting on file today to the
8 document request and the deposition notice.
9 MR. BROWN: Okay.
10 Q. Would you pick up Exhibit 1 there for me, please.
11 And first look on the second page. You will see some
12 matters there that you're requested to produce. Would you
13 read through that and you can read them to yourself, but as
14 you read past each one would you tell me whether you have it
15 or you don't have it here today, I mean.
16 A. I have everything but my billing records.
17 Q. Have you sent any billing records -- any billings
18 at all to -- the name of the firm again? I'm sorry.
19 A. Womble.
20 Q. How do you spell that?
21 MS. EILERAAS: I can help with that. It's
22 W-O-M-B-L-E.
23 MR. BROWN: Okay. And --
24 THE WITNESS: Carlyle, I think.
25 MS. EILERAAS: C-A-R-L-Y-L-E.

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1 MR. BROWN: C-A-R --
2 MS. EILERAAS: L-Y-L-E.
3 MR. BROWN: Q. Have you billed them yet for
4 anything you've done in this case?

5 A. I'm not certain, but I believe a first bill might
6 have gone out. I had probably a relatively small amount of
7 time on it, but I think a first bill went out.
8 Q. Can you tell me how much you've billed them so
9 far?
10 A. I don't know.
11 Q. What's your billing rate?
12 A. It's \$450 an hour.
13 Q. And how many hours roughly have you put in as of
14 this point in time in this case?
15 A. Probably more than 50 and less than 100.
16 Q. Was that five-oh, more than 50?
17 A. Yes.
18 Q. But less than 100?
19 A. That's my best guess of the range.
20 Q. Okay. Is this the first time you've been retained
21 by that law firm?
22 MS. EILERAAS: Objection. Vague, ambiguous.
23 MR. BROWN: Q. As an expert.
24 MS. EILERAAS: Objection. Vague, ambiguous. I'll
25 also object to the extent that it may call for work
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1 product. If you want to ask him about retention as a
2 testifying expert, limit it to that, that would clear it up.
3 MR. BROWN: I don't think I understand.
4 Q. But I would like you to tell me, Doctor, if you
5 would, please, if you've ever been retained as an expert
6 witness by Womble Carlyle prior to this case.
7 MS. EILERAAS: I'm going to object again as vague,
8 ambiguous, and calling potentially for work product
9 information to the extent that it includes anything other
10 than testifying in trial or deposition.
11 MR. BROWN: Q. Well, answer the question if you
12 can.
13 MS. EILERAAS: And I'll direct the witness to
14 answer to the extent that it refers to testifying expert
15 only.
16 THE WITNESS: This is the first time that I've
17 been retained as a testifying expert by Womble Carlyle.
18 MR. BROWN: Q. Have you ever been retained as a
19 consultant?
20 MS. EILERAAS: Objection. Calls for work product
21 information and I'll instruct the witness not to answer.
22 MR. BROWN: You're instructing an expert not to
23 answer?
24 MS. EILERAAS: I'm advising him not to answer,
25 that's correct.
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1 MR. BROWN: Ah.
2 MS. EILERAAS: Thank you, Counsel.
3 MR. BROWN: Q. In any case, have you been
4 retained by them -- just yes or no -- for anything else
5 other than testifying as an expert?
6 MS. EILERAAS: Objection. Same objections. Calls
7 for work product information, and I'll advise the witness
8 not to answer to the extent that it calls for anything other
9 than testimony as an expert.
10 MR. BROWN: Q. Will you answer the question?
11 MS. EILERAAS: You don't have to answer the
12 question. I've advised you not to answer.
13 MR. BROWN: So?
14 THE WITNESS: I think I'll take the advice.
15 MR. BROWN: Okay. Well, I can't honestly say

16 we'll make a motion to compel, but it will be put under
17 consideration.

18 MS. EILERAAS: Fair enough.

19 MR. BROWN: And I'll say one thing for that
20 objection. It's the first time I've ever heard it. But --

21 Q. You won't even answer yes or no as to whether
22 you've been retained by this law firm for anything other
23 than as an expert witness? You won't even say yes or no to
24 that?

25 MS. EILERAAS: That's the same question that I've

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1 advised him not to answer.

2 MR. BROWN: Oh, okay. Well, we'll think about
3 whether we make a motion on that or not. I guess we'll see
4 what happens the rest of the way here.

5 Q. How much have you earned in the last one year from
6 work done by Womble Carlyle?

7 A. I don't know.

8 Q. Give me your best estimate.

9 MS. EILERAAS: I'm going to object again to the
10 extent that it calls for information regarding retention
11 other than as a testifying expert.

12 MR. BROWN: Well, you can tell me that, first.

13 Q. Give me your best estimate of what you've earned
14 in the last year from this law firm for being -- or acting
15 as an expert witness.

16 A. My -- my work acting as an expert witness would be
17 less than the 50 to 100 hours that I told you I've already
18 billed on this matter.

19 Q. You can't do any better than that on the
20 estimate? Just less than 50 to 100?

21 A. I would suspect that about half my time on this
22 matter has been spent with the knowledge that I was to be
23 named as an expert witness in this particular matter.

24 Q. I think I'm confused. In this case you've worked
25 50 to 100 hours, right?

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1 A. Correct.

2 Q. In all other cases for the last year as an expert
3 witness, how much time have you put in?

4 A. Nothing --

5 MS. EILERAAS: Objection to the extent that it
6 calls for any information regarding whether or not
7 Dr. Cicchetti has been retained in a capacity other than as
8 a testifying expert.

9 MR. BROWN: Q. I think I heard the answer "none"?

10 A. You did.

11 Q. Is this the very first time you've ever been
12 retained as an expert witness, then, by Womble Carlyle?

13 MS. EILERAAS: Just to clarify, you mean an expert
14 witness who has been designated, named in a case?

15 MR. BROWN: I don't know why you're being so
16 technical, but no, I'm not going to verify -- do that. As
17 an expert witness. Expert witnesses testify before
18 Congress, they testify before agencies, they may appear --
19 goodness knows, any place. So I'm just going to let the
20 phrase hang out there. Expert witness.

21 Q. Is this the very first time you have been
22 retained as an expert witness?

23 MS. EILERAAS: And again, just for clarification,
24 if expert means a testifying expert and testifying in any
25 form, as you've identified, that's fine. But a testifying

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1 expert, fine.
2 MR. BROWN: I didn't know what that qualification
3 means, so I'm not going to accept that.
4 THE WITNESS: Well, my answer would be this is the
5 first time I've been hired as a testifying expert witness by
6 Womble Carlyle.
7 MR. BROWN: Q. What is a testifying witness?
8 A. Somebody who has been designated to be an expert
9 witness in litigation or some other formal matter that the
10 designation has been made.
11 Q. How much have you earned over the last five years
12 for work performed by Carlyle -- I'm sorry. Womble Carlyle?
13 MS. EILERAAS: Objection. And same advice not to
14 answer to the extent that it calls for any information
15 relating to anything other than being designated as an
16 expert witness.
17 MR. BROWN: And the objection is what? For what?
18 MS. EILERAAS: That it's work product. You
19 phrased the question broadly enough to encompass everything,
20 and my objection is that to the extent that Dr. Cicchetti
21 has been identified designated in a matter as an expert
22 witness, he can answer.
23 MR. BROWN: So your position is that an expert
24 witness does not have to answer a question about how much
25 he's earned from the retaining law firm over some period of
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1 time, this case five years, because that would be work
2 product? Is that -- do I understand that correctly?
3 Because I want to be sure I'm not misstating it.
4 MS. EILERAAS: To the extent that it calls for
5 information about anything other than cases, matters where
6 he's been designated as an expert witness, that's correct.
7 It's work product.
8 MR. BROWN: Well, you're rousing my curiosity.
9 MS. EILERAAS: Lord knows I don't mean to do that.
10 MR. BROWN: Well, that's one of the unintended
11 consequences of that objection. But counsel, I think you
12 might want to think over the position. But, for example,
13 hypothetically, if he earned somewhere around two,
14 three million dollars a year doing some work for Womble
15 Carlyle, that would have some suggestion of bias and we're
16 entitled to know that.
17 On the other hand, maybe it's just such a
18 miniscule amount it doesn't matter. But we're entitled to
19 find out.
20 MS. EILERAAS: Well, I've made my objection for
21 the record, and I'll take it under advisement.
22 MR. BROWN: Poor Commissioner Best. I bet he's
23 never seen this motion before. Well, moving right ahead.
24 Q. Have you ever had your deposition taken before?
25 A. Yes.
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1 Q. How many times?
2 A. I'm not certain, but I suspect it's between 15 and
3 20 or 25.
4 Q. And were you ever testifying or were you ever
5 deposed, I should say, sorry, in any of those depositions
6 for a law firm that represented a tobacco company?
7 MS. EILERAAS: Maybe for clarification, do you
8 mean in a tobacco case or a firm that also represented a
9 tobacco company?
10 THE WITNESS: Why I'm hesitating is I have exactly
11 that fine nuance in my head.

12 MR. BROWN: Q. Let's take the first part of the
13 nuance. Were any of those depositions, were they taken in a
14 case where a cigarette manufacturer was being sued and you
15 were retained by one of the defendant's law firms?

16 A. No.

17 Q. Okay. You said how many depositions? I didn't
18 write it down.

19 A. I think I said 15 to 20 or 25.

20 Q. And over what period of time is that?

21 A. Nearly 30 years.

22 Q. Were you testifying as an expert in any of those
23 depositions?

24 A. Yes.

25 Q. All of them?

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1 A. No.

2 Q. About how many were you testifying as an expert?

3 A. I think all but one. It could have been two, but
4 I think all but one.

5 Q. How many in the last year?

6 A. One or two.

7 Q. Were any of these for Womble Carlyle?

8 A. No.

9 Q. In the last year, who were you testifying for?

10 A. I'm drawing a blank. I've sort of put my other
11 activities out of my brain, and I'm not remembering. I'm
12 sorry.

13 Q. Well, let's move on. Maybe -- we'll come back to
14 it.

15 Have you ever testified before a Congressional
16 committee?

17 A. Yes.

18 Q. On the subject of tobacco?

19 A. No.

20 Q. What subject did you testify on?

21 A. Well, I've testified on numerous matters, mostly
22 related to energy policy, environment --

23 Q. Sorry. What?

24 A. Energy policy. Environmental policy. Regulatory
25 policy and accounting. Other kinds of macro-economic and

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1 public policy issues.

2 Q. Okay. Do you have a CV?

3 A. I do.

4 Q. Can I see that?

5 A. I believe it's the first one in the box, if --

6 Q. Is this it (indicating)?

7 A. That's it.

8 MR. BROWN: We'll mark that Exhibit 3.

9 Q. What state was Governor Patrick Lucey governor of?

10 A. Wisconsin.

11 Q. And you're still at USC?

12 A. I am.

13 Q. You have a bachelor's of arts in economics at
14 Colorado College in 1965, correct?

15 A. That's right.

16 Q. Colorado College is where?

17 A. Colorado Springs, Colorado.

18 Q. And your Ph.D. was in economics at Rutgers?

19 A. That's correct.

20 Q. And what was your thesis on?

21 A. It was on the demand and supply of outdoor
22 recreation. An econometric approach.

23 Q. That looks like you may have lived in Wisconsin
24 for a while, hmm?

25 A. I did.

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1 Q. Well, do you now?

2 A. No, I did.

3 Q. What's the Pacific Economics Group?

4 A. It's a consulting firm that I'm one of the
5 co-founders of that has offices in Pasadena, California.

6 Q. Where?

7 A. Pasadena.

8 Q. I know.

9 A. Pasadena, California.

10 Q. But where in Pasadena?

11 A. On Lake Street or Lake Avenue. And Madison,
12 Wisconsin.

13 Q. You're wondering why I'm interested. Because I
14 used to live at 3005 North Lake Boulevard. I went to L.A.
15 Junior High and John Muir.

16 And do you live in [DELETED]?

17 A. I do.

18 Q. And you teach at USC?

19 A. I do.

20 Q. Okay. What are the areas in which Pacific
21 Economics Group consults? What areas? What subjects?

22 A. We consult in -- on regulatory and antitrust
23 issues. We consult on various statistical analyses of large
24 data systems. And we consult on general areas of public
25 policy that require the use of economics, statistics and

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1 I'll call it broad public policy issues.

2 Q. When you were with Arthur Andersen, where was that
3 located?

4 A. I was -- I worked for them and my office was in
5 Los Angeles. My principal office was in Los Angeles,
6 California. And I had an office in Chicago, as well.

7 Q. Does Pacific Economics Group also have an office
8 down somewhere near USC?

9 A. No.

10 Q. How many hours a week do you teach?

11 A. I teach in the fall semester five hours a week, in
12 the spring semester 10 hours a week.

13 Q. What do you teach?

14 A. I teach a graduate course in finance and public
15 policy and a graduate course in economic theory and public
16 policy, and an undergraduate course in government business
17 and the economy.

18 Q. Any of those courses deal with cigarette
19 manufacturing?

20 A. Not with manufacturing.

21 Q. Some other aspect of a cigarette retail/wholesale
22 business?

23 MS. EILERAAS: Objection. Vague and ambiguous.

24 MR. BROWN: Q. Well, some other aspect of
25 cigarettes, in the cigarette industry?

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1 A. I deal with public policy issues related to
2 current events which include issues like tobacco taxes,
3 tobacco settlements, issues related to how government sets
4 policy standards for environmental or industrial
5 regulations. So my course in government business and the
6 economy would in particular deal with major current event
7 and political issues that are current, and so in that

8 context I would have discussions and lectures relating to
9 tobacco, for example.

10 Q. Have you ever acted as a consultant for RJ
11 Reynolds Company?

12 MS. EILERAAS: Objection. This gets to the same
13 area of consulting that I'm going to advise the witness not
14 to answer to the extent that it relates to any consulting --
15 strike that -- any work other than as a designated expert to
16 testify.

17 MR. BROWN: Q. So have you acted as a consultant
18 for RJR?

19 MS. EILERAAS: Same objections.

20 THE WITNESS: I did some work for Nabisco when I
21 was at Arthur Andersen, and I believe Nabisco was part of
22 RJR at the time.

23 MR. BROWN: Q. Okay. Was it just one time, then,
24 that you've been a consultant for RJR?

25 MS. EILERAAS: Objection. Vague, ambiguous. And
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1 again, I'll advise the witness not to answer to the extent
2 that it relates to anything other than testimony or
3 designation as an expert witness on the grounds of work
4 product.

5 MR. BROWN: Work product in what? Litigation?

6 MS. EILERAAS: Maybe part of the problem is the
7 question is very broad and ambiguous, and I'm having a hard
8 trouble -- having a hard time understanding where you're
9 going.

10 MR. BROWN: How much money he's made from tobacco
11 companies. That's pretty simple.

12 Q. Let me throw that one out. How much have you
13 earned for consulting or doing any work whatsoever for any
14 tobacco manufacturer?

15 MS. EILERAAS: Okay. We're getting back to the
16 area where we were before then, I think.

17 MR. BROWN: I know.

18 MS. EILERAAS: And I'm advising the witness not to
19 answer.

20 MR. BROWN: Q. Will you answer that question?

21 A. No.

22 Q. How much has Pacific Economics Group earned for
23 consulting or doing any other work for any tobacco company?

24 MS. EILERAAS: The same objection and same advice
25 not to answer.

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1 MR. BROWN: Q. These publications are books?

2 A. The first ones I think are.

3 Q. Monographs. What's a monograph?

4 A. I think it's a -- one or two of the books were
5 published by an organization rather than a publishing
6 company, so I call them monographs. They were sort of
7 officially published but they were not something that was
8 put out with a hard cover and made part of the --

9 Q. Okay.

10 A. -- Library of Congress.

11 Q. As we go through here, would there be articles
12 published in magazines or what?

13 A. Most of the articles are articles published in
14 various economic, legal, public policy type journals. And I
15 think there are some publications that I refer to as less
16 technical, which were publications in magazines.

17 Q. Are any of these publications, whatever subset
18 they fall into, do any of them deal with anything that

19 relates to what your testimony is going to concern today or
20 going to concern in the trial of this action?
21 MS. EILERAAS: Objection. Vague, ambiguous.
22 THE WITNESS: I'm not certain.
23 MR. BROWN: Q. Well, what in general --
24 A. What part of it do you mean? The methodology and
25 the statistical approaches that I would expect to rely on as
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1 an expert witness in this particular matter are identical to
2 the methodology and statistics I've used in some of these
3 other publications.

4 Q. Well, give me just a general overview. What do
5 you expect to testify concerning in this case?

6 MS. EILERAAS: Objection. Broad and vague.

7 THE WITNESS: I think there are two areas that
8 I'll testify in. One is on tobacco cessation and the
9 benefits in terms of reduced risk from cessation. And the
10 second is on low-dose asbestos relative risk and issues
11 related to how those two matters might work together.

12 MR. BROWN: Q. Do you have any training in
13 epidemiology?

14 A. I do not.

15 Q. You don't consider yourself an epidemiologist?

16 A. I don't.

17 Q. Let me take this first subject. Tobacco -- oh,
18 tobacco cessation. I couldn't read my own writing. And
19 reduced risk.

20 Is that something that comes from your analysis of
21 CPS-II?

22 A. Yes.

23 Q. Okay.

24 A. In part.

25 Q. Where else would that come from?

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1 A. I've studied the literature that has been written
2 by various governments, as well as various non-profit
3 organizations, as well as the academic literature that
4 exists on the value of cessation and the effect that
5 cessation has on relative risk of prevalence of lung cancer.

6 Q. Do you have any medical training?

7 A. I don't.

8 Q. Do you have any scientific training?

9 MS. EILERAAS: Objection. Vague and ambiguous.

10 MR. BROWN: Q. Well, do you consider yourself an
11 expert in any science?

12 A. I don't consider myself an expert in science, no.

13 Q. Just generally, because we'll get into it
14 specifically, but just generally on what basis do you arrive
15 at any opinions as to reduced risk for cessation of smoking?

16 A. Well, I rely on two things. One, my studying of
17 the literature as a person who teaches and writes about,
18 does research in public policy.

19 And second, my statistical analysis and expertise
20 particularly as it relates to analyzing survey data and
21 large sample survey data, to be specific.

22 Q. But no part of your opinion will be based upon any
23 medical expertise?

24 A. I don't have any medical expertise.

25 Q. So it will all come from statistical analysis? Is

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1 that the idea?

2 A. It will come from statistical analysis and my
3 interpretation of the public policy publications related to

4 the benefits of tobacco cessation.

5 Q. When you talk about benefits, are you talking
6 about something other than reduction in relative risk?

7 A. Well, I might be, but I think I'm principally
8 focusing on, when I use the term "benefits," the reduction
9 of relative risk.

10 Q. Well, what are the opinions you've formed with
11 respect to the cessation of smoking and the reduction of
12 relative risk?

13 A. Well, there are probably two, and they're
14 interrelated.

15 The first is that if a person has quit smoking for
16 10 to 15 years holding their use more or less constant, that
17 the relative risk that individual returns to approximate in
18 a statistical sense the relative risk of a never smoker in
19 the general population with similar characteristics.

20 The second issue is I've investigated in both the
21 literature as well as in CPS-II the way in which the
22 intensity of smoking, when a former smoker was smoking,
23 would affect the relative risk and the reduction in relative
24 risk and the speed at which a former smoker approaches the
25 never smoker, again, in terms of relative risk holding other

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1 things constant.

2 Q. I guess I need additional testimony on that one.
3 I don't understand what you've just told me. I didn't
4 understand that. Whatever it is that you've just explained,
5 that came from the literature and CPS-II, I guess that's
6 correct. Right?

7 A. Whatever I have to say about tobacco cessation
8 comes from both the literature and CPS-II.

9 Q. Now, first of all, what do you mean by intensity
10 of smoking?

11 A. I mean the number of cigarettes per day that an
12 individual on average smokes, the number of years the
13 individual may have smoked, and combining the two into a
14 term that is used generally in the literature by multiplying
15 cigarettes per day times the number of years of smoking to
16 determine pack/years. And so by intensity of use, I mean
17 any combination of those three pieces of information -- or
18 two pieces of information looking at it three different
19 ways. Cigarettes per day, years of smoking, and pack/years
20 which is the product of those two, first two numbers.

21 Q. And what is your opinion going to cover with
22 respect to intensity? Intensity as it relates to what?

23 A. The simplest way to explain it is that while on
24 average the number of years quit reduces relative risk of
25 former smokers statistically back to the same relative risk

00026

1 of never smokers, it turns out if you analyze the data and
2 search the literature you will find that a second factor
3 confounds the first, and that second factor is how much
4 smoking did the individual actually have when they were a
5 current smoker before they quit.

6 So both the years quit and the intensity at which
7 an individual smoked affect the relative risk calculations
8 or -- that one can make from CPS-II data, and this has been
9 reported in the literature as well as in my own analysis
10 of -- I found that also in my own analysis of the CPS-II
11 data.

12 Q. I think I understand what you're saying. The
13 degree and perhaps the speed with which a smoker approaches
14 relative risk of a never smoker has something to do with the

15 intensity at the time they stop smoking?
16 A. I would say the intensity during the whole period
17 they smoked.
18 Q. Okay.
19 A. It could be variable, but yes. The intensity
20 matters as well as the years quit matters. At least that's
21 what I find in both the literature and in my analysis of
22 CPS-II.
23 Q. Are you going to testify to any other opinions
24 other than those two and those that are a subset of those?
25 A. That's a broad question. You mean on -- on the
00027
1 tobacco cessation issue?
2 Q. Yes.
3 A. Or do you mean on other things?
4 Q. On anything. Does that generally cover the two
5 primary issues, and all other opinions would then be part --
6 part and parcel of those two? Or are there some other
7 opinions you are going to give?
8 MS. EILERAAS: Objection as to what the two issues
9 are.
10 MR. BROWN: What he just described.
11 THE WITNESS: The two issues that are the
12 principal issues I will address in terms of the relative
13 risk of cessation -- and by that I mean quitting smoking --
14 are the two that I've just described.
15 MR. BROWN: Q. So would this be an accurate
16 description of the first opinion that you're going to
17 testify to? Well, let me ask this first. Are you going to
18 testify to anything specific with respect to the plaintiff,
19 Leslie Whiteley?
20 A. No.
21 Q. So let me go back, then, to these two principal
22 issues, one being as I understand it when a smoker quits.
23 Are you going to offer opinion as to what happens to the
24 relative risk over time if a person stays -- stays with that
25 decision to terminate smoking?
00028
1 A. It's possible I might describe matters in that
2 fashion, but it hasn't been determined in my mind.
3 Q. Well, just give me the principal opinion you're
4 going to give me about relative risk after one quits
5 smoking.
6 A. I think I've already given you that. It's --
7 Q. What is it?
8 A. It's that quitting reduces relative risk.
9 Quitting for more years reduces relative risk. And the
10 intensity with which an individual smoked and the duration
11 they smoked determine the value of the relative risk
12 reduction that comes about when individuals quit.
13 Q. The more intensity the less it reduces? Or the
14 more it reduces? Something like that?
15 A. Well, they interact, which means that you can't
16 give a linear answer.
17 Q. Well, are you saying that you're going to testify
18 that a smoker -- let's take two smokers. One has an
19 intensity of X and one has an intensity of X-plus. Are you
20 going to testify as to which of those smokers would have the
21 greater reduction in relative risk if they quit?
22 MS. EILERAAS: Objection. Incomplete
23 hypothetical.
24 THE WITNESS: I'm going to testify that the
25 reduction -- let's put it this way. Let me use the term

00029

1 "benefit." It's easy to use it knowing that I mean by
2 benefit primarily reduction in relative risk.

3 The benefit from a heavy smoker from quitting is
4 greater than the benefit of a light or occasional smoker
5 from quitting. But the number of years it takes for a heavy
6 smoker to get to the same place as a light smoker or to get
7 to the same place as a never smoker is greater. So that
8 heavier smokers get a bigger benefit when they quit, but it
9 takes them more years to recover from their heavy exposure
10 and intensity of smoking when they were indeed involved in
11 smoking.

12 MR. BROWN: Q. Are you going to offer opinions as
13 to any particular intensity of smoking and how long it would
14 take to reduce their relative rate if they quit?

15 A. I might.

16 Q. Well, is there any other principal opinion that
17 you're going to provide? I assume that there's going to be
18 other opinions that relate to this 1 and 2, that they're
19 part of 1 and 2. But are there any other opinions you're
20 going to give?

21 A. There are opinions related to age and gender of
22 individuals that are found in the literature, as well as in
23 CPS-II, that I'd say feed into my analysis and I might make
24 some comment or make some statement about age and gender.

25 There are some nuances in the CPS-II reporting as

00030

1 well as in the publications dealing with CPS-II that I might
2 also be required to explain or discuss, but the two
3 principal conclusions on cessation are the ones I've been
4 describing to you.

5 Q. Well, what are your opinions on those two? Let's
6 take the first one, that if you quit smoking it reduces
7 relative risk. What are you going to tell us?

8 A. Well, I think I've already told you, but I guess
9 I'll say it again.

10 Q. No, don't just repeat what you've already said. I
11 mean I don't think you've spent 50 hours getting ready to
12 say if you quit smoking it reduces relative risk. You're
13 not going to stop there, are you?

14 MS. EILERAAS: Objection. It mischaracterizes his
15 testimony.

16 MR. BROWN: Fill this out for me.

17 Q. So what? Probably everybody thinks that if you
18 stop smoking there's going to be some reduction of relative
19 risk of some kind over some period of years. So that isn't
20 what you're there for alone. What are you going to testify
21 to on that subject?

22 MS. EILERAAS: Objection to the form of the
23 question. It's vague, ambiguous and overly broad.

24 THE WITNESS: There's a difference between knowing
25 or believing or surmising that doing something is a good

00031

1 thing and trying to determine, A, whether or not the
2 literature says that with some degree of statistical
3 certainty, and also whether or not there's some agreement in
4 the literature on how to quantify the different aspects of
5 quitting, both the aspects of the individual before they
6 quit which gets to duration and intensity, and the number of
7 years of quit.

8 So part of what I expect to explain are what
9 others have said about the issue of smoking cessation and
10 the speed and the manner in which former smokers return to a

11 position where their relative risk is statistically
12 equivalent to a never smoker.

13 In addition, I will explain how as both an
14 independent verification as well as a statistical process
15 that I've engaged in, I went out and tried to determine
16 whether I could find things in the data or things in the
17 CPS-II that would either add on to or somehow complement
18 what I'm finding in the literature. In other words, I
19 didn't simply review the literature; I went out and
20 independently attempted to replicate certain findings as
21 well as to test for other hypotheses in relationships that
22 with my particular training in statistics with large data
23 systems my experience allowed me to identify and to
24 investigate.

25 Q. How do you understand this will be relevant to the
00032

1 plaintiff in this case?

2 MS. EILERAAS: Objection. Assumes a fact. Lack
3 of foundation.

4 MR. BROWN: Assumes it might be relevant?

5 MS. EILERAAS: Well --

6 MR. BROWN: I'm not assuming that.

7 Q. How do you understand this will be relevant to
8 this case?

9 MS. EILERAAS: Objection. Calls for -- I mean
10 vague and ambiguous.

11 THE WITNESS: The answer is I don't know.

12 MR. BROWN: Q. What do you think the purpose of
13 your testimony is?

14 MS. EILERAAS: Objection. Calls for speculation.
15 Vague, ambiguous.

16 THE WITNESS: That I also don't know.

17 MR. BROWN: Q. Well, this isn't a guessing game.
18 And you're required to come here prepared to testify and
19 give a meaningful deposition. So what you've told me so far
20 is not very meaningful. I'm going to need a lot more
21 specifics than what you've given me so far. And you've told
22 me about two principal opinions. And you've done some
23 statistical analysis, I guess.

24 What have you done?

25 MS. EILERAAS: Objection to the form of that

00033

1 statement or preamble in front of the question, as well as
2 object to the question as vague and ambiguous.

3 MR. BROWN: Q. So what have you done? What's
4 your statistical analysis? What have you done?

5 MS. EILERAAS: Objection. Compound.

6 THE WITNESS: I've examined the CPS-II survey
7 data, focusing on the females in that survey data.

8 MR. BROWN: Q. Okay.

9 A. I've also focused and would rely on the data
10 related to mortality from the individuals who were surveyed
11 in 1982 and who died sometime between 1982 and 1988 when the
12 follow-up was completed.

13 Q. All right.

14 A. And I focused on and would rely on the analysis of
15 mortality attributed to lung cancer. The method that I used
16 is called the multi-variate logit approach.

17 Q. Multi --

18 A. Variate.

19 Q. Variate?

20 A. Logit, L-O-G-I-T.

21 Q. Would you explain what that is?

22 A. Yes. I take the logarithm of the probability of
23 an event occurring divided by the probability of the event
24 not occurring as the dependent variable, and I run a
25 multiple regression analysis against various possible
00034

1 explanatory variables or factors that might be associated
2 with the prevalence of that event occurring. And I perform
3 what's called a maximum likelihood estimate of that logit
4 function, and that allows me to statistically test the
5 significance of the various factors that I hypothesize might
6 be important and the relationship which I hypothesize that
7 they might in fact interact or be related to one another.

8 Q. Let's just stick with CPS-II. After you did your
9 analysis you've just described generally, do you have any
10 conclusions?

11 A. Yes.

12 Q. Okay. What were they?

13 A. They're the same conclusions I've been stating.
14 Namely, that heavier smokers have a greater relative risk of
15 prevalence or probability of dying of lung cancer than never
16 smokers or light smokers.

17 Q. Okay.

18 A. That relative risk of former smokers declines over
19 a 10 to 15 year period to statistically equal the relative
20 risk of a never smoker, and the rate at which that relative
21 risk decline occurs is a function of the pack/years as well
22 as the intensity, cigarettes per day, as well as the
23 duration, all of which are combined in a pack/year variable
24 to determine the speed and the way in which statistically
25 former smokers approach the relative risk statistically of

00035

1 never smokers.

2 Q. And you draw no conclusions about your analysis or
3 your conclusions regarding Leslie Whiteley? Is that
4 correct?

5 A. I don't have any conclusions about Leslie
6 Whiteley.

7 Q. All right. Let me ask you a hypothetical
8 question. If you have -- I'll just -- so far, all this
9 comes from CPS-II, right?

10 MS. EILERAAS: Objection. Misstates his
11 testimony.

12 MR. BROWN: Q. What you've just given me here is
13 from CPS-II? You said you went out and did some
14 confirmation of the literature, but your analysis that
15 you've just been describing comes from CPS-II?

16 A. I think what I said was I did a full analysis of
17 the literature as best I'm able to do.

18 Q. That's the overview.

19 A. And --

20 Q. But we just a second ago --

21 A. Let me finish.

22 MS. EILERAAS: Let him finish his answer.

23 THE WITNESS: I haven't finished. And I didn't do
24 that as a way of confirming my statistics. If I did
25 anything, I did the literature analysis and review first and

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1 used that to help formulate the hypotheses that I would
2 statistically test in the CPS-II data.

3 So if we are talking about the statistical or
4 scientific method that I used, it was to do the literature
5 review and public policy review first, and then find out
6 whether or not CPS-II data or survey could be used to either

7 confirm the hypotheses that I was finding or the public
8 policy pronouncements I was finding, or to in some sense
9 extend them into other areas in ways that really hadn't been
10 done in the literature.

11 MR. BROWN: Q. You just mentioned something that
12 you hadn't mentioned before. You did some work to determine
13 what public policy was? What public policy ought to be?
14 What?

15 A. I haven't done any work on what public policy
16 ought to be. I think I said I did some what I thought of
17 and still think of as a thorough review of the literature to
18 find out what public policy has to say about the benefits of
19 tobacco cessation or smoking cessation.

20 Q. What did you find?

21 A. I find that most of the conclusions that I've
22 reached independently as they relate to the years quit
23 benefit are stated throughout the literature in terms of --
24 of the public policy literature in terms of the benefits
25 that one would derive from quitting.

00037

1 So I found that the literature is -- in terms of
2 the public policy, clearly states that tobacco cessation
3 reduces relative risk of dying of lung cancer and that after
4 10 to 15 years, many authors and many public policy
5 expositors are suggesting that after 10 to 15 years on
6 average the former smoker has the same relative risk
7 statistically as a never smoker.

8 Q. What literature did you look at to obtain public
9 policy that you've just mentioned in your testimony?

10 A. I looked at a variety of literature related to the
11 Surgeon General's report on tobacco cessation.

12 Q. Year?

13 A. I forget the year. It's in my box. It was in the
14 early '80s.

15 Q. Okay.

16 A. It could be the mid '80s.

17 I also studied some 25 to 30 articles on tobacco
18 cessation and how cessation reduces relative risk, which are
19 also in my box of materials.

20 Q. Okay.

21 A. And I reviewed general information that's
22 available on the Internet and in various kinds of popular
23 press and other publications that for the most part are not
24 in my box because they're -- it's information that I
25 consider background, not something that I would expect to

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1 rely upon.

2 Q. Okay. So is all the literature that you relied
3 upon -- is all the literature that you relied upon in this
4 box here?

5 A. All the literature that I will rely upon to reach
6 any conclusions if called upon as an expert witness are in
7 that box.

8 Q. Well, are there conclusions you haven't reached
9 yet?

10 A. No.

11 Q. So every conclusion that you expect to testify
12 concerning you already have formed?

13 A. Correct.

14 Q. And you've told me about --

15 A. I wouldn't say expect to testify.

16 Q. You will testify?

17 A. I wouldn't say that, either. I would say if

18 called upon to testify, there are no conclusions that I have
19 not reached that I would be called upon to testify. I'm
20 sorry for the double negative in my answer, but I think you
21 get my drift.

22 Q. Well, let's -- if you can pick up the designation
23 which is right in front of you, that's Exhibit 2, and if you
24 turn to page 6, there's six listed areas in which you are,
25 according to the designation of counsel, expected to

00039

1 testify.

2 A. Yes.

3 Q. I'm skipping down through the earlier numbers.
4 Let's see. Does what you've just been telling me about
5 relate to number 5?

6 A. I think it relates to number 4 and 5.

7 Q. Okay. Let's start with 4 which reads: His,
8 meaning yours, review of the epidemiological studies and
9 analysis pertinent to smoking and lung cancer risk,
10 including lung cancer risks in former smokers.

11 Have you generally described the area you're going
12 to talk about or render an opinion about that is covered by
13 number 4?

14 A. Yes.

15 Q. Okay. And the epidemiological studies that are
16 mentioned in 4, are they in this box?

17 A. They are.

18 Q. Why don't you take the box, it will help you more
19 than it will help me at this point, and perhaps you can just
20 point out to me where they are. Are they in one spot or
21 scattered?

22 A. I believe the box is in alphabetical order which
23 doesn't lend itself necessarily to separating out what I'll
24 call the tobacco cessation pieces and the asbestos pieces.

25 Q. Okay. Well, give me an example of the -- maybe

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1 give me two or three epidemiological studies that relate to
2 this number 4.

3 A. Here's one that I just pulled out called Smoking
4 Cessation and Nonsmoking Intervals: Effect of Different
5 Smoking Patterns on Lung Cancer Risk.

6 Q. Would you hand it to me? Let's take just this
7 article. Let me mark this as -- can I mark this?

8 A. Sure. It's your box, as far as --

9 Q. Okay. Well, I don't know how to mark that box,
10 but what do you want to do? Let the reporter take it? He
11 doesn't look very happy.

12 (Mr. Barron enters the conference room.)

13 MS. EILERAAS: Do you want to --

14 MR. BROWN: Plan to make a copy for me? Or is
15 that the copy you can give the reporter or what?

16 MS. EILERAAS: We can make a copy for you if you
17 want a copy of it.

18 MR. BROWN: Next in order is exhibit what? 4?
19 That's the article you've just mentioned which is entitled
20 Smoking Cessation and Nonsmoking Intervals: Effect of
21 Different Smoking Patterns on Lung Cancer Risk apparently
22 appeared in Cancer Causes and Control, would that be right?

23 A. I don't remember the article, to tell you the
24 truth.

25 Q. This is something you reviewed to --

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1 A. It is, yes.

2 Q. You reviewed it for this deposition, did you?

3 A. Well, I reviewed it. It's something that I used
4 in terms of my work to formulate my hypotheses that I went
5 out and tested statistically. So in that sense, I've
6 reviewed it.

7 Q. Okay. So that came from -- that came from what,
8 did I read that correctly?

9 A. Cancer Causes and Control.

10 Q. And the date?

11 A. Volume 2, 1991. Oxford.

12 Q. If I could have it back for a minute.

13 Are the conclusions, if any, that the authors of
14 Exhibit 4 drew, do they play any part in your analysis?

15 MS. EILERAAS: That's pretty vague. Do you want
16 him to read all the conclusions in the article now and
17 answer that? Or is there a particular aspect of it?

18 MR. BROWN: I'm just trying to get a feel of the
19 methodology here.

20 Q. I don't know that you have to read it to answer my
21 question. What I'm asking is using this article as an
22 example, did you take the conclusions, if any, that were
23 reached by these authors and somehow use that in your
24 analysis?

25 MS. EILERAAS: Objection. Vague and ambiguous.

00042

1 THE WITNESS: Well, let's put it this way. It's a
2 case-controlled study. It is consistent with the
3 conclusions that I've been describing that I've reached.
4 And it stresses that cumulative cigarette consumption is an
5 important factor in determining relative risk, and it's
6 cumulative cigarette consumption and how that becomes the
7 starting point and the base from which we determine the
8 relative risk reduction that comes from cessation and the
9 time it takes to achieve the ultimate objective of cessation
10 which is the return to the relative risk of a former -- I'm
11 sorry, of a never smoker. It lays out that particular
12 proposition in a formula that looks quite similar at least
13 in mathematical terms to the formula that I in fact relied
14 upon and used in my own analysis of ACS-II.

15 Q. How did Exhibit 4 -- what part did Exhibit 4 play
16 in arriving at your opinions?

17 MS. EILERAAS: Objection. Vague and ambiguous.

18 THE WITNESS: It didn't play any role in terms of
19 coming by my opinion other than to be an independent basis
20 for my opinion. It is part of the literature that I've
21 endeavored to make a universal collection of all information
22 that I could find in published refereed and public major
23 public policy outlets dealing with the subject of tobacco
24 cessation.

25 MR. BROWN: Q. You consider that a public policy

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1 outlet?

2 A. No, I think it's a refereed journal.

3 Q. What do you mean by refereed?

4 A. By refereed, I mean that an individual submits
5 their writings to a journal. The journal sends it out to
6 independent reviewers to determine whether or not the
7 contents of the journal meet the standards of scientific
8 inquiry, and if it does, then that journal may or may not
9 decide to publish the results of that analysis.

10 Q. You're talking about peer review?

11 A. That's another way to say it.

12 Q. Now, how did you use this Exhibit 4 in your
13 analysis?

14 A. I think I've already answered that.
15 Q. Well, I don't have any sense from your answer as
16 to how you used it. I mean are you saying you just used it
17 to confirm some analysis you did based on other information?
18 MS. EILERAAS: Objection. Misstates his
19 testimony. Asked and answered.
20 THE WITNESS: I think it worked the other way
21 around as I explained it. I read this article before I did
22 any analysis of CPS-II.
23 MR. BROWN: Q. All right.
24 A. This analysis suggested two things to me: One, it
25 is part of the literature that explains that tobacco
00044

1 cessation is a good thing, but the benefits of tobacco
2 cessation are a function of how much you smoked when you
3 smoked and how long you've quit if you've quit. That's part
4 of my opinion that comes from the public policy and academic
5 literature on tobacco cessation which I've reviewed.
6 Q. But this is not --
7 A. Any --
8 Q. -- academic public policy.
9 MS. EILERAAS: Let him finish.
10 MR. BROWN: Q. When you refer to that, that's
11 not what this is?
12 A. I don't know that to be certain. That may be your
13 opinion.
14 Q. I don't know.
15 A. I don't know, either. But what -- but my second
16 part of my answer is it also helped provide the conceptual
17 and intellectual input to the hypotheses that I formulated
18 and tested from the CPS-II data, because this was among the
19 articles that suggested that you couldn't just look at years
20 of quitting and determine the reduction in relative risk;
21 you had to also look at the cumulative exposure to tobacco
22 smoke which is a function of how long you smoked and how
23 intensely you smoked during the years that you were smoking.
24 Q. So did you use it for any other purpose other than
25 to confirm your analysis?

00045
1 MS. EILERAAS: Objection. Misstates his
2 testimony.
3 THE WITNESS: I used it for two purposes. The
4 first purpose was it is part of my analysis, it is an input
5 to my analysis of the literature which I would expect to
6 testify on, which is what are people saying in both refereed
7 journals and in public policy publications and public health
8 publications that are associated with how relative risk of
9 dying of lung cancer is reduced or the association of that
10 dying of lung cancer is reduced relative to tobacco
11 cessation, that is, the years quit, and your duration or
12 your intensity of smoking when you were smoking.
13 MR. BROWN: Q. Okay.
14 A. The second part of my analysis is I used that
15 literature to bring it into the world of CPS-II. I
16 mentioned a moment ago that this is a case-controlled study,
17 meaning it's a limited number of individuals in a highly
18 controlled analysis.
19 The CPS-II data is a survey of a million people
20 without controls, and therefore my intention was to
21 formulate hypotheses from these more limited statistical
22 studies to see if I could find in CPS-II some agreement, if
23 you will, test the hypotheses that come out of these more
24 limited studies in that bigger statistical survey.

25 Q. Well, did you take some statistics out of this
00046

1 Exhibit 4 and use it in your analysis?

2 A. I don't know what you mean by statistics.

3 Q. Did you --

4 A. What I mean by statistics, the answer is no.

5 Q. Did you take any factor, any information and
6 somehow input that into your statistical analysis?

7 A. Well, the answer to that is yes in the following
8 sense: A statistical analysis is -- begins by formulating
9 hypotheses where the analyst or the statistician articulates
10 what he or she thinks will be the factors that might explain
11 or be associated with the dependent variable which in this
12 case is the probability of dying of lung cancer.

13 I took from this article and from other articles
14 ideas and information to formulate those hypotheses which
15 are the first step in a statistical analysis. I did not
16 take raw data, numbers, or the kinds of things that we
17 generally define as statistics from this article and somehow
18 transfer those numbers into my statistical analysis.

19 Q. You did not do that?

20 A. I did not do that. I did the former but not the
21 latter. By the former, I mean I used this article to help
22 formulate the hypotheses I tested statistically, but I used
23 no data from it to include -- I included no data from it in
24 my statistical analyses.

25 Q. Okay. You said that you had two purposes a few
00047

1 minutes ago from this article as an example. And one was to
2 bring it into CPS-II. What did you mean by that?

3 A. What I meant by that is to use the ideas of this
4 article to establish the hypotheses that I tested in
5 CPS-II. So this article was among the articles that
6 explains that the cumulative exposure to tobacco in a
7 case-controlled world affects the way in which quitting
8 reduces relative risk or the speed by which quitting reduces
9 relative risk.

10 I decided, having read this article, to test that
11 hypothesis in the CPS-II data set to see if I could find
12 some confirmation or agreement in CPS-II which is a
13 million-person survey of this limited -- I forget how many
14 hundreds of people, maybe even less than hundreds -- this
15 limited case-controlled study performed in West Germany had
16 to inform us on the subject.

17 Q. To see if CPS-II did what? Confirm that article
18 or what?

19 A. No, I wanted to see if the CPS-II data or survey
20 could produce a result in that data set that was found by
21 these authors in 1991 based upon a case-controlled study of
22 194 lung cancer cases and 194 controlled cases in West
23 Germany in 1985-1986.

24 Q. Just generally describe what your test was in
25 CPS-II. How did you test it?

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1 A. Well, they state in their article, that is, the
2 authors of this article based upon the case control in West
3 Germany, that the relative risk -- I'm paraphrasing -- is a
4 function of the cumulative cigarette consumption, the
5 duration of the non-smoking interval, and time since
6 quitting smoking.

7 Q. Okay.

8 A. Now, I was able to test cumulative cigarette
9 consumption and time since quitting in the CPS-II data, so

10 two of the three things that these authors were able to
11 analyze in a case-controlled world I was able to test to see
12 whether I could find similar patterns statistically in the
13 CPS-II million-person survey.

14 Q. Could you show me where in Exhibit 4 you read?
15 You read some language?

16 A. I already marked it --

17 Q. Down at the bottom?

18 A. -- for you. It's at the bottom of the page with
19 the -- it looks like I guess an arrowhead.

20 Q. Greater than?

21 A. It could be greater than or if you're on the other
22 side, less than.

23 Q. Well, reading part of that, I'll start reading
24 where the first full sentence starts.

25 A. Okay.

00049

1 Q. "For example, a smoker with a 25 pack/year of
2 cumulative cigarette consumption who had a non-smoking
3 interval of three years and has been an ex-smoker for five
4 years has an estimated RR of" -- and they produce a formula,
5 and the formula comes out 4.6.

6 So what you tried to do is to take that and see if
7 with the CPS data you could obtain the same result or
8 something similar to that?

9 A. Well, I couldn't do quit intervals, because in
10 CPS-II I wasn't able to break the data down to include
11 individuals who tried smoking and then returned to smoking.
12 Instead, I was in -- in CPS-II I was dealing with whether or
13 not you're a current smoker or a former smoker, and if you
14 were a former smoker, how many years since you quit. But I
15 couldn't deal with these cases that they're trying to deal
16 with which is to include a third element, which is trying to
17 find out how relative risk declines even for people who quit
18 for a while and then returned to smoking.

19 Q. I see.

20 A. I wasn't able to test that third step, but I could
21 test the difference between a current smoker of a certain
22 intensity and cumulative exposure and a former smoker of a
23 similar intensity and cumulative exposure and the years
24 since they quit. I was able to test those pieces, but not
25 that on again/off again pattern that these authors were able

00050

1 to do because they were dealing only with 194 individuals.

2 Q. They had a little more information?

3 A. They had the individuals right there and could ask
4 follow-up questions and get all sorts of information from
5 them.

6 Q. How did you understand -- what did you understand
7 this to mean, that a non-smoking interval of three years but
8 an ex-smoker for five years. I don't understand the
9 difference between three and five. Do you have an
10 understanding of what that means?

11 A. I think it might -- may mean that like many people
12 they quit for a while, returned to smoking and then quit
13 again. So the first time they quit, they quit for three
14 years, and then they quit finally eventually for five years.

15 Q. So in your analysis of CPS-II, you didn't deal
16 with people who quit and then went back? Is that the idea?

17 A. I only know people who say they are ex-smokers or
18 former smokers. I don't know how they got to that point.

19 I do know the point at which they report that they
20 became a former smoker, and I know the point in time that

21 either they were surveyed or they either died or didn't die,
22 depending upon where they flow through this million-person
23 survey.

24 Q. Tell me the information that you took from CPS-II
25 to reach your conclusions. On per person.

00051

1 You said you focused on females. Did you just
2 look at females?

3 MS. EILERAAS: Objection. Compound.

4 THE WITNESS: I did look -- the only group that I
5 looked at I intend to rely upon from CPS-II are
6 females.

7 MR. BROWN: Q. Now, did you --

8 A. I do have a list of data in the box of all the
9 variables that I pulled from CPS-II.

10 Q. Right. Pull that out for us.

11 A. Sure.

12 MR. BROWN: Okay. Let me have this marked.
13 They're multiple pages here. Do you have at least a clip of
14 some kind we can put on this?

15 This will be Exhibit 5.

16 Q. Now, explain what this is, the Exhibit 5.

17 A. There are two pieces -- two documents that are
18 part of Exhibit 5. One is the questionnaire that was used
19 for women in the ACS-II. And the other is the variables
20 that I have pulled from ACS-II. That doesn't mean that I
21 intend to rely upon all of those variables. In fact, I've
22 been describing to you the primary variables that I am going
23 to rely upon.

24 Q. So Exhibit 5 is variables. That's every single
25 one that CPS-II had?

00052

1 A. That's every single one that I felt that I could
2 interpret and codify and that I thought I might use at some
3 point in any analysis I might do from ACS-II.

4 Q. Okay. I think I'll mark these page numbers with
5 letters, so it will be A, B, C. When I get to D, I guess
6 that's the questionnaire, right?

7 A. Correct.

8 Q. D, E, F and G.

9 MS. EILERAAS: Just so the record is clear,
10 Counsel, the markings in the lower right-hand corner of each
11 page are your page numbers?

12 MR. BROWN: Right. The questionnaire is blank, of
13 course.

14 Q. But all of the variables on pages A through C came
15 off questionnaires of those subjects that you included in
16 your review, the questionnaire that's marked D?

17 A. Correct.

18 Q. Okay. Now, I don't understand the basis for your
19 selecting these particular variables. But I do understand
20 you didn't use them all. Is that correct?

21 A. Correct.

22 Q. What was your -- the basis for your picking ones
23 that made this list on Exhibit 5?

24 A. At the time I put together that list and went
25 through the survey, that is, the ACS-II survey, to quantify

00053

1 various -- or to define various variables or to define
2 specific variables, I decided to be as all-inclusive as I
3 thought the data would allow me to be. So the list that you
4 see is approximately as much as I could identify that I
5 would be able to pull from ACS-II that I thought was

6 potentially significant or important in terms of identifying
7 the factors that might be associated with relative risk
8 increases or decreases from various kinds of factors that
9 might be associated with death from different causes.

10 Q. Not just lung cancer?

11 A. No.

12 Q. But including lung cancer?

13 A. Lung cancer would be included, yes, in terms of
14 that list.

15 Q. Explain for us how this Exhibit 5 works. There's
16 a column over here on the left. You've circled age. Is
17 that something you circled because it was a factor you used?

18 A. Age is the -- is a factor that I guess -- if I
19 could see it I might be able to help you.

20 The circled items are factors which I thought of
21 all the variables that are on this list I'd probably want to
22 try to take a look at. It doesn't mean I did, but it's --
23 these are the ones that I thought would be most likely to be
24 potentially important.

25 Q. Why? What was your criteria for circling

00054

1 something?

2 A. They were consistent with factors that I was
3 finding either in the literature I had reviewed or they were
4 factors that in my own reading, particularly on nutrition, I
5 thought people were putting out statements and news agencies
6 were reporting statements about factors that might either
7 increase the risk of cancer death or reduce the risk of
8 cancer death.

9 Q. Any kind of cancer?

10 A. Any kind of cancer.

11 The check marks are factors which I thought of as
12 potentially interesting, again from the review of the
13 literature as well as what's popularly stated.

14 Q. Show me a check mark so I know what you mean.

15 A. (Indicating).

16 Q. Like where? Down here (indicating)?

17 A. Yeah. But I thought of them as less important
18 than the ones that I circled.

19 Q. Okay.

20 A. So the broad list is the list of essentially
21 everything I could -- I thought I could glean and untangle
22 from the ACS-II data. And the circles were the ones that I
23 at one point intended to investigate, and the check marks
24 were ones that I thought I might get around to
25 investigating.

00055

1 Q. Okay. Let me go on asking you questions about how
2 to interpret Exhibit 5. There's -- let's take age. You
3 circled it because you thought it was most likely going to
4 be of importance.

5 A. Yes. Everybody that does an analysis of survey
6 data, epidemiological data of a population, concludes that
7 age and various deaths from lung cancer or any other kind of
8 cancer are normally highly correlated and associated with
9 one another; that is, death and age seem to go together.
10 Older people are more likely to die of any cause than
11 younger people, and younger people less likely to die. So
12 age is a factor that both my study of the literature as well
13 as my common sense told me might matter, so I circled it as
14 a factor that I'd want to consider.

15 Q. How many females did you look at in this
16 analysis? How many were involved in this?

17 A. Well approximately half the people of the survey
18 are females. I looked at two surveys -- I pulled two
19 samples from the approximate half a million females. One
20 was over -- was close to 60,000 and the other was, as I
21 remember, about 50,000. So I looked at essentially one out
22 of every nine people in the survey and one out of every 4.5
23 females. I looked at a little bit more than 20 percent of
24 the females in the survey in terms of putting them into my
25 statistical analysis.

00056

1 Q. When you say looked at, you mean you --

2 A. I mean I analyzed.

3 Q. You input them into your analysis?

4 A. I guess the best word, since you used the verb
5 "input" is I inputted those observations and the information
6 about those observations from the survey questionnaire into
7 the computer as part of my multi-variate logit analysis.

8 Q. So your database, then, did you have two
9 databases? One 60,000 females and another one 50,000
10 females?

11 A. Yes. The way I did my work is I first analyzed
12 essentially one in nine people. And then I analyzed one in
13 ten people, making certain that I had a separate group of
14 individuals. And in the one in nine and in the one in ten,
15 I immediately cut out any men that were pulled out of the
16 sample to consider only the females. So that the analysis
17 at least that I'm relying upon looked at women only from a
18 one in nine sample and an independent one in ten sample.

19 Q. Which is the one in nine? The 60,000 or the
20 50,000?

21 A. The one in nine would be the sixty.

22 Q. I got lucky. I put it on the same line.

23 Okay. What is the range of age in your 60,000
24 sample?

25 A. I don't remember, but I suspect it was -- I don't
00057

1 know. I don't remember. I don't remember the range.

2 Q. What's the age range in CPS-II?

3 A. I don't remember.

4 Q. What is it in the 50,000?

5 A. I don't remember that one, either.

6 Q. Did you draw any conclusions as to the likelihood
7 of a female dying of lung cancer if she was under 40?

8 MS. EILERAAS: Objection. Vague, ambiguous.

9 THE WITNESS: I drew -- I've drawn conclusions
10 about female deaths from lung cancer as a function of age in
11 the presence of other factors, but I haven't drawn any
12 independent conclusion about age in a specific -- for a
13 specific age group.

14 I do know two things. I have two conclusions with
15 respect to age and women. One is that the relative risk of
16 women dying at a younger age of lung cancer is less than for
17 men. And the relative risk of women dying at an older age
18 is greater for women than in men. But as I expect to rely
19 only on my analysis of women, the only conclusion I can draw
20 with respect to age and do draw with respect to age is that
21 older women are more likely to die of lung cancer than
22 younger women. But I make no arbitrary or specific
23 calculation or cutoff of when that break might come between
24 no risk or greater risk. I simply observed that there's a
25 continuous tendency for relative risk to increase

00058

1 statistically as women age.

2 MR. BROWN: Q. Okay. Did you do analysis of the
3 likelihood of women dying of lung cancer from smoking under
4 the age of 40? Did you combine smoking with under 40?

5 MS. EILERAAS: Objection. Vague.

6 THE WITNESS: I've considered the relative risk of
7 smokers of different intensities, including nevers, formers
8 and current who are also women and who had age, and I
9 considered all of those factors simultaneously in my
10 statistical analysis to determine whether or not I would
11 find a statistically significant contributing factor
12 associated with each of those variables. And I have found
13 that age and smoking history for women affects the relative
14 risk of dying of lung cancer. But I have not made any
15 particular calculation for one person. I didn't do a
16 statistical analysis that tries to determine whether one
17 person or one type of person is different from all others or
18 different from specific others. I consider all people
19 simultaneously in my analysis.

20 MR. BROWN: Q. Well, I didn't mean to ask about
21 individuals. I'm asking I guess this: What did you find,
22 if you found anything, that the relative risk was of a 25
23 pack/year female with 25 year duration in smoking who was
24 under age 40?

25 A. Well, I've done a calculation of relative risk of
00059

1 people with certain characteristics who are current smokers
2 of a certain age with a certain pack/year cumulative history
3 and determined their relative risk in comparison to a never
4 smoker.

5 I've also done some calculations for people who
6 have same age, same sex perhaps, but a different cumulative
7 exposure and who are former smokers to determine their
8 relative risk as compared to a never smoker.

9 And I've compared those two categories, that is,
10 the heavy, continuous and current smoker to the lighter
11 quitter who has quit a number of years, I've made some of
12 those calculations in my analysis. But I didn't do it
13 statistically. I used the statistical results that I
14 estimated from CPS-II to determine an equation, a
15 mathematical equation, and then I put in different factors
16 for the variables that are in that equation to determine how
17 relative risk varies as those factors vary.

18 MR. BROWN: Q. Is the work that you're
19 describing, is it all on a document or --

20 A. It is.

21 Q. -- a series of documents? That's here too, I
22 assume?

23 A. Yes.

24 Q. Well, let me be sure I understand what you're
25 saying. You did not make an analysis of relative risk of a
00060

1 female versus a never smoker, a female who had a 25
2 pack/year, 25 year duration who was under 40 years old?

3 A. I think I did do that.

4 Q. And what did you find?

5 A. I think I found that the relative risk in the
6 first survey of a current smoker with, say, approximately a
7 25 pack/year history who was 38 years old was somewhere
8 between 16 times and -- in one model, and maybe 13 times
9 greater risk than a never smoker.

10 Q. Okay. Did you do a mortality analysis, too? Or
11 just the lung cancer analysis?

12 A. All my data is an analysis of dying of lung

13 cancer. As I said a while ago, I didn't look at diagnosis.
14 I looked at it, but I don't rely on it for any of my
15 conclusions.

16 Q. So this is a mortality relative risk you just gave
17 me?

18 A. Yes.

19 Q. So you're saying that a female who is 38 who has
20 smoked for 25 -- who has a 25 pack/year history and has a
21 duration of smoking of 25 years has a relative -- mortality
22 relative risk against a female who never smoked of either
23 16 --

24 A. Let's --

25 Q. -- times greater or 13 times greater? Something
00061

1 in the middle? Is that the idea?

2 A. The way I would describe it is you have to look at
3 the two data systems give approximately the same results.
4 They -- they're consistent with one another. Each of the
5 results that you -- that I derive from the two different
6 samples that I drew have a statistical range of confidence
7 around them. But as I recall, the relative risk of a
8 current smoker with approximately those characteristics
9 compared to a never smoker is in the range of in one model
10 approximately 16.

11 Q. Okay.

12 A. And in the other model, approximately 13 to 14. I
13 don't recall it exactly.

14 Q. Now, those models relate --

15 A. By model I mean sample.

16 Q. Okay. That's the 60,000 sample and the 50,000
17 sample?

18 A. Correct.

19 Q. Okay. And you don't know what the range of age
20 was for those two samples, hmm? Youngest, oldest?

21 A. I don't remember the youngest person in the sample
22 or the oldest person in the sample.

23 Q. Where were most of them? What was the age of most
24 of them?

25 A. They pretty much reflected the age distribution in
00062

1 the United States, so they looked -- this was a random
2 sample of a million people, and the sample sizes were
3 sufficiently large that if I remember the youngest age in
4 ACS-II I could pretty much give you the answer. But my
5 guess is they would be people on the high end in their 80s
6 in the sample, but I don't recall what the cutoff is in
7 ACS-II on the low end, so I can't tell you what that is.

8 Q. Okay. Let me -- we're still trying to figure out
9 what's on this Exhibit 5 on one line. Let me keep plugging.

10 Let's take this age again that's circled. And
11 then over the next one it says -- there's a 10. What does
12 that 10 mean?

13 A. I have to see. Oh, that -- I don't know. I think
14 it --

15 Q. I was going to march across the page, so following
16 the 10, what does it say?

17 A. Tuesday, November 2nd.

18 Q. What -- what's that mean?

19 A. It means the sample -- it means this was put
20 together on Tuesday in November. I think the next number
21 over is 2. I therefore think that either at 10:00 a.m. or
22 10:00 p.m., whatever time the computer was thinking.
23 Probably 10:00 a.m.

24 Q. Next?
25 A. On Tuesday, November 2nd, this data was put
00063
1 together. Now, the 10 I guess can't be the time because --
2 Q. Can you show it to me while you're explaining it?
3 A. Sorry.
4 Q. You can hold on to it.
5 A. The time is obviously 19:26. So it's 7:00 p.m. in
6 the evening. Or 7:26 p.m. in the evening.
7 Q. Then it says the year. 1999. This was all done
8 approximately early November 1999?
9 A. This printout from the data set was done early
10 November 1999. Yes. I don't know -- the decision to draw
11 this sample this way could have been made a week or two
12 earlier, but essentially early November.
13 Q. Well, then it says current age in the last line
14 after the age you've circled.
15 A. Yes.
16 Q. Okay. So that just describes what's in the first
17 column?
18 A. It describes -- that's right. It's the current
19 age at the time of the survey, which is the current age in
20 1982. If you die after 1982, I adjust for the year you died
21 to put the age of your death in my analysis.
22 But this variable is the age in 1982 when the
23 survey was conducted.
24 Q. So this age would change for a person who died?
25 A. It would change for everyone. It would change for
00064

1 everyone if they're alive in 1988, the period at the end of
2 which the follow-up was done. Everybody who is alive would
3 have six or seven years added onto their age.
4 Q. Oh.
5 A. If they died, I put the year they died in. I take
6 that into consideration and put in the year they died.
7 Q. That's all within the eight years?
8 A. It's all within the eight years, yes.
9 Q. I misunderstood. I thought you meant that -- the
10 study just stopped following people at the end of eight
11 years, correct?
12 A. That's right.
13 Q. So if they died after that, you don't know it?
14 A. That's right.
15 Q. Okay. Can I -- if we can have the next one which
16 we'll make Exhibit 6, if you'll show me the document that
17 shows what you ran, what your analysis were that you ran as
18 you've been describing it.
19 MS. EILERAAS: Would this be a good time for a
20 short break?
21 MR. BROWN: Sure. Let me ask one other question.
22 Q. Is the bulk of this box articles like Exhibit 4?
23 A. The bulk is --
24 Q. Which you did approximately the same thing as you
25 did for Exhibit 4?

00065
1 A. It also deals with asbestos. And it deals with
2 some transcripts that I read.
3 Q. Okay. So we've got --
4 A. And then it has this thing that I pulled out which
5 is what I'm about to give you the bulk of, which is the
6 statistical analysis.
7 Q. Okay. So you've got articles that deal with
8 smoking and lung cancer? That would be one group of

9 articles?
10 A. Yes.
11 Q. And then you have articles that deal with asbestos
12 and lung cancer?
13 A. Or asbestos and incidences of different diseases,
14 but mostly cancer, yes.
15 Q. Okay. Including mesothelioma?
16 A. Yes.
17 Q. And then there's the statistical analysis you're
18 about to hand me, and then there's depositions?
19 A. And some other tables that you haven't asked me
20 about yet.
21 Q. What are the tables?
22 A. A one-page calculation of the relative risk of
23 low-dose asbestos from family contacts.
24 A summary of the articles as they relate to
25 current and former smokers that were reported in the Surgeon
00066
1 General report of 1990 that dealt with tobacco cessation.
2 A memo to the files that explained some of the
3 anomalies in the ACS-II data, that is the number of cases
4 where people on the one hand say that they never smoked and
5 on the other hand report cigarettes per day.
6 Q. Is that your memo or somebody else's?
7 A. It's a memo that a staff person wrote to me and to
8 some of my colleagues to give us the count of those kind of
9 things.
10 Q. Well, one of your staff people?
11 A. Yes.
12 Q. Okay.
13 A. And then the rest of it is results from the work I
14 did on ACS-II.
15 Q. ACS?
16 A. ACS-II.
17 Q. Okay.
18 A. And there's also a calculation of -- or some
19 statistical analyses that I've done of the Selikoff data
20 relating to the 17,800 individuals who were former
21 insulation installers in New York and New Jersey.
22 MR. BROWN: Why don't we mark that before we get
23 off the record and then we'll take a break.
24 THE WITNESS: Mark?
25 MR. BROWN: Mark everything you just pulled out.
00067
1 I don't know whether to mark it one number or a lot of
2 numbers. Bring it over and explain it to us.
3 What would be next? Exhibit 6.
4 So what are you giving us now?
5 THE WITNESS: Well, everything that we just talked
6 about.
7 MR. BROWN: Q. Okay. Let me take a look.
8 A. Here is the one-page asbestos calculation
9 (indicating).
10 MR. BROWN: That just stands alone? Right.
11 THE WITNESS: I would say.
12 MS. EILERAAS: Why don't we mark them by different
13 category. So yes.
14 MR. BROWN: Q. So this is Exhibit 6, which you
15 say is a one-page calculation of asbestos risk and family
16 contacts?
17 A. Yes.
18 Q. Sometimes called paraprofessional exposure? Is
19 that what you mean? You've never heard that expression?

20 A. I can imagine the term, but I've never heard it.
21 Q. Okay. So asbestos households. All right.
22 What's this next document?
23 A. This is the summary of what's in the Surgeon
24 General -- or my -- some analysis I've done and some pulling
25 together information from reports that the Surgeon General
00068

1 relied upon to reach conclusions about tobacco cessation
2 benefits.
3 Q. What do we call this? This is a Surgeon General
4 report analysis, 1990 report analysis? What do you call it?
5 A. I call it my analysis of the Surgeon General
6 references.
7 Q. In 1990? For 1990?
8 A. 1990.
9 MS. EILERAAS: Is that marked as 7?
10 MR. BROWN: Yes.
11 Q. What did you do here? If you would just briefly
12 explain it. You put down the name of a study, the
13 population they studied, and then what does Current mean?
14 A. Current smoker.
15 Q. And what's the number mean?
16 A. It's the relative risk of a current smoker.
17 Q. And then you have a half a pack a day?
18 A. This is the relative risk of if you can derive it
19 from an individual who is a former smoker, and in one study
20 based upon CPS-II, they get the former low pack at half a
21 pack a day and a high pack, one and a half a day.
22 Q. What's the relative risk of the first column then?
23 A. That's the current smoker.
24 Q. But what dose?
25 A. That's the problem with relying on case control or
00069

1 these -- this data is that you take the average of everybody
2 in the whole sample.
3 Q. Oh, so that is what that is. The average?
4 A. They average -- well, it may be the only reported
5 value or it may be the median or the mean value that's
6 reported. It's essentially the --
7 Q. They were quote smoking?
8 A. -- smoking risk, yes.
9 Q. So they were just smokers, but no information
10 about dose?
11 A. Their intensity, yes.
12 Q. The bottom, is that the same thing?
13 A. It's a different group but it's also referred to
14 the same idea.
15 Q. Same idea? Okay. Next? Maybe this is going to
16 take longer than I thought. Do you want to break now?
17 A. We're almost done actually. This is the memo that
18 I referred to that discusses the anomaly in the data.
19 And this is some analysis that I've done of the
20 Selikoff data.
21 MR. BROWN: Okay. Do we have something to put
22 around this so it doesn't fall apart? This looks like it
23 might be -- have numbered pages, at least. Are these in
24 order?
25 A. They're in the order that I pulled them off the
00070

1 computer, yes.
2 Q. I notice that --
3 A. At the end there's --
4 Q. -- it starts with page 3 and it runs down to

5 page --
6 A. There may be some that I discarded that I
7 calculated in between if there are missing pages.
8 Q. It looks like it runs to page 13 and then the
9 pages stop then there's something different here?
10 A. That's the list of the data that was included in
11 the Selikoff data set.
12 Q. Then it starts with page 1 again.
13 A. That's another way of describing the data in the
14 Selikoff data set.
15 Q. Okay. So the pages actually run 3 to whatever I
16 said there, 13. And would the first page give us an idea of
17 what the rest of them were doing? Could you explain what
18 that first page does?
19 A. This is a -- an analysis of the Selikoff data for
20 the individuals for which it was reasonable to deduce how
21 many years an individual may have worked in an asbestos
22 industry from the survey data.
23 Q. That's all that's for?
24 A. That's how I went from his 17,800 down to
25 approximately 10,200.

00071

1 Q. How did you reduce it? I mean what --
2 A. There were some individuals in the survey that did
3 not provide information that allowed any kind of reasonable
4 approximation of the duration of their employment in an
5 asbestos industry.
6 Q. Okay.
7 A. And therefore, I had to omit them from this
8 analysis.
9 Q. What was the purpose of that analysis? What were
10 you trying to find out?
11 A. I was trying to find out if there was a way of
12 quantifying the difference among asbestos workers in the
13 Selikoff data that had low exposure in the sense that they
14 worked for less years as opposed to high exposure in the
15 sense that they worked more years. And I was also trying to
16 determine whether I could find out if asbestos workers in
17 the Selikoff data, if they had quit smoking would they
18 reduce or affect in some way the relative risk of dying of
19 lung cancer in the Selikoff data sets.
20 Q. So that's an analysis you did to see whether
21 cessation of smoking and the reduction of relative risk was
22 impacted by the amount of asbestos exposure they had?
23 A. Well, I tried to do that.
24 Q. Okay.
25 A. I also tried to look at them separately.

00072

1 Q. What did you conclude?
2 A. Well, I -- I think that my conclusions here are
3 things that I would not rely upon as a matter of statistics,
4 because I believe that when you take nearly half the
5 observations and you -- and you're forced to remove them,
6 you could have all sorts of potential biases introduced to
7 your analysis.
8 However, the results do suggest to me that with
9 great qualifiers that I would attach to them, that heavier
10 smokers who also have asbestos exposure --
11 Q. What kind? Heavy? High or what?
12 A. Well, that's the problem. You don't know really
13 in the Selikoff world.
14 Q. They're all insulators, though?
15 A. They're all insulators, or they worked for an

16 insulation company.

17 Q. It might have been a clerk up in the office?

18 A. Correct.

19 Q. Okay.

20 A. They may have had supervisory jobs for 19 years
21 and insulating jobs for one year or vice versa, and that's
22 the problem with the data.

23 But a bigger problem with the data from my
24 perspective was some people didn't answer the questions,
25 didn't answer all the questions as related to their time on

00073

1 the job, and therefore, I had to eliminate them. And the
2 bias that could come from the people who didn't answer the
3 questions in my opinion is too great to reach any strong
4 conclusions from this data. But the data does show two
5 things, and I find those two things to be important because
6 they are consistent with findings that I've come from from
7 the literature as well as from my analysis of ACS-II.

8 And the first finding is that even among this
9 group of insulators in the asbestos installation business,
10 that quitting reduces relative risk of dying of lung cancer.

11 And second, this data also suggests that for the
12 people, knowing that it could be biased, but for the people
13 for which I was able to determine their duration in the
14 asbestos industry, I could find no statistically significant
15 effect on lung cancer death for individuals who worked one,
16 two or three years in this sample. Now, that's an important
17 conclusion but one that I would not accept as a
18 statistician, because I had to throw out nearly half the
19 observations from this sample.

20 Q. Were those one, two or three years all in the
21 10,200 you're talking about? Or no?

22 A. They're in the ones that were included, the
23 10,200, yes.

24 Q. Were those all --

25 A. They're all from that.

00074

1 Q. -- one, two or three years?

2 A. I only analyzed the 10,200. I couldn't analyze on
3 this question the 8,000 or nearly 8,000 people. That's why
4 I wouldn't rely on this to reach a conclusion. But because
5 it supports other things that I've found, at least it's
6 consistent with it, about low-dose asbestos exposure, I've
7 included it because while I wouldn't rely entirely on this,
8 it's at least consistent with my other findings.

9 Q. I guess I didn't understand that conclusion.
10 Would you say it? What's the conclusion you drew from
11 the -- from what?

12 A. The conclusion is that if you work in the asbestos
13 industry for four or more years, your relative risk of dying
14 of lung cancer increases, and it increases as a function of
15 the number of years beyond four that you work in the
16 asbestos industry.

17 Q. And these are all heavy smokers?

18 A. No. These are all individuals, some of whom are
19 heavy smokers, some of whom are -- relatively few who are
20 never smokers, and some of whom might be former smokers.

21 Q. So smoking didn't -- wasn't a significant factor
22 you could analyze, then?

23 A. Yes, it was.

24 MS. EILERAAS: Objection. Vague and ambiguous.

25 MR. BROWN: Q. But you didn't know how much --

00075

1 how many of these people were heavy or how many were not?
2 A. Well, I used the same multi-variate logit approach
3 in this analysis as I've used in my ACS-II analysis, which
4 means that as a statistical process I look at all the
5 potential factors that I hypothesize might matter and the
6 way in which they might interact with one another in a
7 single equation, and I look at the data to get a maximum
8 likelihood estimate of the equation that I specify. And in
9 that process I test for the statistical significance of the
10 factors and their relationship with one another that I
11 hypothesize to begin with.

12 So these are the results of all these factors
13 considered simultaneously, not one at a time.

14 MR. BROWN: Q. Recognizing that you thought the
15 conclusions were in and of themselves not reliable, what
16 were the conclusions you drew out of this one study as to
17 what extent smoking had an impact on the mortality of these
18 insulation workers?

19 A. I didn't do that calculation separately, but I can
20 tell you that the smoking consumption of current smokers in
21 this survey or in the sample from the survey, and it's not a
22 sample in a random sense, it's a self-selected sample,
23 that's why I wouldn't rely on the results, but the heavier
24 cumulative pack/years of current smokers increases the
25 relative risk of dying of lung cancer among this group of
00076

1 individuals. Which, again, is not a random sample because
2 of the selection bias.

3 Q. So there were two things that apparently you
4 concluded increased the relative risk of dying. One was the
5 length of duration of asbestos exposure and the other was
6 the number of pack/years?

7 A. Well, the answer -- those were the two that went
8 up in the positive end.

9 Going down on the negative end was quitting. And
10 also going down was short duration of employment.

11 The problem with this data and the problem with --
12 that is the Selikoff data with and without the
13 self-selection adjustment is there is a strong statistical
14 correlation and even common sense logical correlation
15 between latency period, period since first exposure, and the
16 duration of exposure. And it's virtually impossible for
17 people who work for many years in this insulation business
18 to untangle whether we're picking up when they've been in
19 the business for 25 or 30 years, whether that's the 25 or 30
20 years of exposure factor or the 25 or 30 years of latency
21 that we know from the literature and at least we can
22 hypothesize from the literature would be important. And you
23 can't really untangle that -- those two effects. And
24 therefore, the same variable is trying to work as both a
25 latency and a cumulative asbestos exposure variable. And
00077

1 from my opinion or my opinion is that you can't separate
2 that out for the people who have been on the job a long time
3 in this industry that are in this data set.

4 Q. Would the -- in your opinion, would the finding
5 that as pack/years went up and along that with when years of
6 exposure as an insulator went up that the -- is this a
7 mortality relative rate we're talking about?

8 A. It's mortality.

9 Q. That the mortality relative rate went up?

10 A. It's death certificate mortality.

11 Q. Okay. From that --

12 A. Which, as you know, there's two definitions of
13 mortality in the Selikoff data.

14 Q. Right. So from that information, then, did you
15 conclude that there's some synergistic effect between
16 asbestos and smoking?

17 MS. EILERAAS: Objection. Mischaracterizes.

18 THE WITNESS: I didn't test for a synergistic
19 effect from this self-selected sample or within this
20 self-selected sample. So I haven't tested for that effect.

21 MR. BROWN: Q. Okay. But did you do a sampling
22 that showed that if you had men who were not heavy
23 pack/years but long insulation workers, they would be less,
24 have a lower mortality relative risk than long insulation
25 duration workers with heavy pack/years?

00078

1 A. I didn't test for the interaction between smoking
2 intensity, which is pack/years --

3 Q. Right.

4 A. -- and insulation latency or time on the job.

5 Q. Okay.

6 A. I included both factors, essentially time on the
7 job for those who remain on the job and therefore we're
8 picking up both exposure and latency in one variable, and
9 intensity of smoking or lack of intensity of smoking. I
10 included both variables in the same equation, but I did not
11 statistically look to see if they were interacting with one
12 another because, as I say, in my opinion this particular
13 selected group of 10,000 out of nearly 18,000 could have
14 associated with it a major bias in the sense that the people
15 who I dropped out may be the very people who stayed on the
16 job and therefore that's why they're not reporting the
17 information in terms of first exposure and in terms of when
18 they quit the job and all the factors that I had to use to
19 try to come up with this particular 10,000 people out of
20 18,000.

21 Q. How long was the 10,200 you did study followed?

22 A. Excuse me?

23 Q. How long were they followed in the Selikoff study,
24 the 10,200?

25 A. Whatever the Selikoff original following period

00079

1 was, which I believe is 10 years, but I'm not 100 percent
2 certain I'm recalling that correctly.

3 Q. Okay. Could we get a clip or something on this
4 one?

5 A. You already called it 9. But I don't have a clip.

6 Q. What's the next one?

7 A. All the rest of them are the results from the
8 different samples of the ACS-II analysis which I think
9 you've been calling the 60,000 and the 50,000.

10 Q. I thought they were from CPS-II. What do you mean
11 by ACS-II?

12 A. ACS-II, that's what I call CPS-II.

13 Q. Oh, all right.

14 A. I -- I give it the name of the sponsor.

15 Q. American Cancer Society?

16 A. The American Cancer Society.

17 Q. Okay.

18 A. And they all are similar sets of statistical
19 results with the exception of the first two, which in the
20 first two is where I've actually calculated the relative
21 risk and the ratio of relative risk for current and former
22 smokers which is the calculation that I did which allowed me

23 to answer your question did I ever do a calculation or make
24 a determination of somebody who is a woman under 40 who had
25 25 pack/years.

00080

1 Q. And a duration of 25 years?

2 A. And it turns out that I -- that's a case that
3 refers to, in these calculations, the Currents. And Never
4 is a never. Therefore, you'll find there's a certain row
5 called Never versus Current. And you'll see 16 is the
6 number I recalled, and it was accurate for the --

7 Q. On that sample?

8 A. For that sample.

9 Q. We find another one that said 13?

10 A. The other one, the number is -- I was pretty
11 accurate. It was 13.45.

12 MR. BROWN: Let's number --

13 THE WITNESS: I think we have to take a break when
14 you get the numbers on there.

15 MR. BROWN: That's okay. We can do that.

16 Q. So these -- this would be -- Exhibit 10 would
17 be -- call that the sample that's dated --

18 A. Let's call it the original sample.

19 Q. All right. And it's dated 11-18-1999. That will
20 be 10.

21 And then 11 -- maybe you could get a little clip.
22 And then 11 would be the 11-18-99 sample. And there's a lot
23 of pages here, but essentially all you do is demonstrate how
24 you got to relative risk of certain individuals? Or what?
25 Could you --

00081

1 A. I wouldn't say it that way.

2 MS. EILERAAS: Objection. Mischaracterizes.

3 MR. BROWN: Q. Certain groups.

4 A. I think we better take a break if you want me to
5 characterize what's in each of those exhibits.

6 MR. BROWN: Okay.

7 MS. EILERAAS: Let's go off the record.

8 (Brief recess in proceedings.)

9 THE WITNESS: I misspoke slightly before the
10 break, and I said the rest of what was here were the
11 statistical results from ACS-II or CPS-II. It turns out
12 there is one final document that's not related to CPS or
13 ACS. And it's a chronology as I've put together of the
14 employment history of Troy Whitteker, based upon his
15 deposition and two documents that the plaintiffs put into
16 the record on his employment history.

17 MR. BROWN: Q. There were two documents? What
18 does that mean?

19 A. There was something called the Kaiser
20 Permanente -- or the Kaiser Cement Corporation response to
21 interrogatories, and the other is Factual Statement in
22 Compliance with General Order 154.

23 Q. Let me see how much of this I can do in
24 generalities and see how much I have to do in specifics.

25 If I understood you correctly before, you're not

00082

1 offering any specific -- any opinions specific to Leslie
2 Whiteley? Or would that not be accurate?

3 A. You asked me about Leslie Whiteley and smoking,
4 lung cancer risk and about her as a specific individual.
5 And I'm not offering any opinions with respect to her
6 medically or about her relative risk in any kind of specific
7 sense, no.

8 Q. Including some --
9 A. But that's all about tobacco.
10 Q. What?
11 A. You only asked me about tobacco. I haven't
12 answered any questions about asbestos.
13 Q. Oh, so you are going to have some specific
14 opinions about Leslie Whiteley in terms of asbestos
15 exposure?
16 A. Well, I might have some opinions about whether
17 whatever level of exposure she might have based upon my
18 analysis of the employment history of her first husband and
19 her father, and whether or not any exposure she may have
20 derived from them would have created an increase in relative
21 risk of lung cancer. And while it's not specific to Leslie
22 Whiteley, the information about her potential exposure based
23 upon her father and first husband have some relationship
24 obviously to her, so I'm not, again, doing an analysis of
25 Ms. Whiteley, but I am doing an analysis of the two people
00083
1 that I understand from the complaint were the primary
2 sources of her claim that she has increased lung cancer risk
3 due to her family contact with her father and her first
4 husband.
5 Q. You're going to give some opinions, then, that
6 someone could easily transpose to Leslie Whiteley? Is that
7 the idea? People -- in other words, you could say generally
8 people with X exposure have this relative risk, and then
9 Leslie Whiteley might fit that? Is that sort of the
10 approach?
11 A. I guess that's right.
12 Q. Are you doing that also with tobacco? I mean
13 where you say -- where you take population of dose and
14 duration and then it turns out Leslie Whiteley fits that
15 dose and duration, so somebody could easily take Leslie
16 Whiteley and fit it into that opinion of yours? Are you
17 going to do that?
18 MS. EILERAAS: Objection. Lack of foundation.
19 THE WITNESS: Well, I don't know what people will
20 do with what expert testimony conclusions I could reach, so
21 I can't speak to that issue. But I can tell you that I can
22 only reach conclusions about the factors that I've included
23 in my analysis. And the factors I've included in my
24 analysis with respect to tobacco we've been discussing, and
25 there are no sort of hidden factors that I have included in
00084
1 my analysis that I haven't described to you and explained to
2 you, many of which would be potential confounding factors
3 that might fit Ms. Whiteley, but they are not included in my
4 analysis.
5 MR. BROWN: Q. Well, do you draw any conclusion
6 from your analysis as to what the cause of Leslie Whiteley's
7 lung cancer was?
8 A. No.
9 MS. EILERAAS: Objection. Vague and ambiguous.
10 MR. BROWN: Q. Is it your opinion generally that
11 a sufficient dose and duration of cigarette smoke causes
12 lung cancer?
13 MS. EILERAAS: Objection. Vague.
14 THE WITNESS: No. I don't reach a conclusion
15 about causality because it's not something that I can speak
16 to based upon my expertise and even the issues that I've
17 analyzed.
18 MR. BROWN: Q. All right. Now, what population

19 groups, then, have you looked at to -- out of CPS-II, in
20 order to determine a relative risk? By that, I mean females
21 under 40, females all ages, females with asbestos exposure,
22 et cetera. What have you analyzed?

23 A. I've looked at all females.

24 Q. Okay.

25 A. I've looked at all ages that are covered by

00085

1 ACS-II.

2 I look at --

3 Q. All ages?

4 A. All ages.

5 Q. Okay.

6 A. I look at smoking intensity. And I look at years
7 smoking and years quit. And as far as the information that
8 I intend to rely upon in reaching any conclusions, that's
9 all I rely upon -- all I will rely upon.

10 Q. Well, there's a -- well, I guess there aren't a
11 lot. I'm looking at Exhibit 5, in terms of circled
12 variables I don't see an awful lot. Let me see if I can
13 count them. It looks to me like five variables are
14 circled. Quite a few are checked, but only five are
15 circled.

16 Did you do an analysis of a population group with
17 the circled variables?

18 A. I may have done an analysis of them, but I'm not
19 intending to rely upon any variables except for the ones
20 that I've been discussing with you and have included in the
21 material that's in front of us.

22 Q. Are all your conclusions from your analysis
23 contained in some of these documents that are in front of
24 us?

25 A. Any conclusion that I would draw is -- for any

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1 expert testimony I might be asked to provide would be based
2 upon the analysis that you see in front of you. So in that
3 sense, yes.

4 Q. Okay. Well, I'm looking at Exhibit 9 which has a
5 lot of statistical information on it. And what doesn't leap
6 out at me is any conclusions you might draw from Exhibit 9.
7 Are there any?

8 MS. EILERAAS: Objection. Mischaracterizes his
9 testimony. Besides the conclusions he's testified to all
10 afternoon?

11 MR. BROWN: You didn't listen to my question.

12 Q. What conclusions do you draw from Exhibit 9?

13 A. Can you show me the cover sheet of Exhibit 9?

14 Q. Sure.

15 A. I've already stated the conclusions I would draw
16 from 9.

17 Q. I understand. I don't want you to state them
18 again. I just want to link them to 9, that's all.

19 A. Well, 9, of course, is what I call the Selikoff
20 17,800 union worker or insulation worker population.

21 Q. Okay.

22 A. So anything that we've discussed about Selikoff
23 insulation sample is included in 9.

24 Q. Okay.

25 A. And as I've already said that while I have these

00087

1 results in my file and while they confirm and inform my
2 judgment based upon what I've read elsewhere, I would not
3 rely on the statistical significance of these results even

4 when, as they do, they confirm with -- or they conform with
5 or are consistent with the results that I'm finding
6 elsewhere in the literature as it affects insulation workers
7 or asbestos exposure and cigarette smoking. That's the end.

8 Q. So the conclusions that -- which you don't find
9 inherently reliable in Selikoff but which are confirmed by
10 other data are what?

11 MS. EILERAAS: Objection. Asked and answered.

12 THE WITNESS: I think I've answered them, but just
13 to --

14 MR. BROWN: Q. Listen, I don't have --

15 A. I'll try to repeat them, if you like.

16 Q. There's no doubt in my mind you have, I'm just
17 trying to link it to 9. That's what I'm doing here in this
18 record.

19 A. I don't think in this case you can link it to 9,
20 because 9 is really only in existence in my files because it
21 is consistent with results I found elsewhere. And I think
22 that consistency is important, because it is -- it is a set
23 of analyses derived from the largest single sample of
24 individuals who have multiple years of asbestos exposure and
25 information related to their tobacco consumption.

00088

1 There are all sorts of problems with the Selikoff
2 data which --

3 Q. But you don't have to explain all that again.

4 A. -- I'm aware of.

5 Q. You've already told us that. So I'm trying to cut
6 through that. I'm just trying to get in one place in this
7 deposition that 9, given whatever doubts you have about the
8 reliability of 9 itself, are confirmed you've told me by
9 other studies, and so that's what I want. These unreliable
10 conclusions which are confirmed, what are those?

11 A. There are two.

12 Q. Two? Okay.

13 A. The first is that --

14 Q. You can be very brief because you've probably gone
15 over it before.

16 A. I'll be as brief as I can be or need to be.

17 The first is that a high cumulative exposure to
18 asbestos has been found to be associated with increased risk
19 of lung cancer and mesothelioma cancer.

20 With respect to low-dose exposure --

21 Q. Is this 2, the second one?

22 A. I said with respect to low-dose asbestos
23 exposure --

24 Q. No, you said there were two conclusions.

25 A. The first -- I'm trying to tell you. The first

00089

1 conclusion is that a high cumulative exposure to asbestos is
2 associated with increased risk of death from lung cancer and
3 mesothelioma.

4 Q. Okay. Two?

5 A. Two.

6 Q. Okay.

7 A. That quitting smoking, even if you are highly
8 exposed to asbestos, will reduce your relative risk of dying
9 of lung cancer or mesothelioma.

10 Q. You mean continued exposure to asbestos?

11 A. No.

12 Q. You quit smoking but you continued to be exposed?
13 Is that what you say?

14 A. Regardless. If you're working in asbestos, quit.

15 If you are -- have worked in asbestos for a lot of years,
16 quit.
17 Q. Either way?
18 A. Either way.
19 Q. Okay. So the risk goes down if you stop smoking
20 even if you continue to be exposed to asbestos?
21 A. Risk goes down relative to people who continue to
22 be exposed to asbestos and continue to smoke.
23 Q. Okay. So I think that takes care of 9. Is there
24 anywhere on 9 where you could read that? Or is this just
25 the statistical analysis that gets you to what you just told
00090

1 us?
2 A. Well, what 9 does, as to all of the printouts that
3 are before you, is each equation begins by my stating in
4 mathematical form the hypotheses that I'm testing. It then
5 proceeds to give us at the bottom of each of these equations
6 the actual estimated coefficient and the T statistic or
7 degree of statistical significance that I assign to those
8 particular coefficients.
9 Q. I see on the first page of 9, it says Independent
10 Variable. And there's a column under, is that what the
11 independent variables are that were used here?
12 A. The independent variables are the variables that I
13 test in the hypotheses to see if they're statistically
14 significant. And yes, they are the variables included in
15 this particular equation, or any of the equations.
16 Q. And they say current, cigarette pack/year,
17 cigarette pack/year ex-smoker? Is that what that means?
18 A. It depends which equation you're looking at.
19 Q. I'm looking at the left column under Independent
20 Variable.
21 A. It depends which page you're looking at.
22 Q. Page 3.
23 A. This equation shows 1 is the person a current
24 smoker; 2, if -- what the current pack/years are of current
25 smokers, of the cigarette pack/years are of the current
00091

1 smokers; then the cigarette pack/years of ex-smokers.
2 Q. Okay.
3 A. The years since quitting.
4 Q. And what's the last one?
5 A. Exposure since 1967.
6 Q. Asbestos exposure?
7 A. Asbestos exposure.
8 Q. Okay.
9 A. Which works both as a latency variable and a
10 potential cumulative exposure variable. It's this
11 comingling of these two ideas.
12 Q. When you say latency variable, you're just talking
13 about when the people in the study were no longer followed,
14 right?
15 MS. EILERAAS: Objection. Mischaracterizes
16 testimony.
17 THE WITNESS: No.
18 MR. BROWN: Q. What do you mean?
19 A. I mean it could be the period from first exposure
20 to the point at which they're -- the survey ends or the
21 individuals are followed 10 years after the survey ends.
22 Q. All right. Let's go to 10. Now --
23 A. Can you show me what 10 looks like so I can find
24 it?
25 Q. Sure. What is 10, and then maybe you can tell me

00092

1 what conclusions you reach from it?

2 A. 10 is an analysis of what I'll call the original
3 sample that I drew from ACS-II or CPS-II, if you like.

4 It has a cover sheet where I calculate and
5 summarize the relative risk of nevers versus quitters,
6 nevers versus current, and nevers versus evers.

7 And I calculate the relative risk for the quitters
8 and for the formers, and I calculate finally the decline
9 between -- in terms of relative risk between a former and a
10 current.

11 Q. And Exhibit 11 will be the same thing, just a
12 different group, right?

13 A. Correct. Different sample.

14 Q. Yes. Okay. Let me go back to we'll just use 10
15 as our model, then.

16 In the lower right-hand corner of the chart where
17 it says 90.93 percent, what is that?

18 A. 90.93 percent says that if a person with
19 characteristics of a current smoker of roughly the kind you
20 were describing earlier, namely somebody with a 25-year --

21 Q. Duration?

22 A. -- pack history, 25 pack/years.

23 Q. That may be different than 25 duration.

24 A. I know, but I -- this is based upon pack/years.

25 Q. All right.

00093

1 A. That somebody with 25 pack/years who is 38 years
2 old and a woman, that compared to a quitter who might have
3 two and a half pack/years and have quit smoking for 20
4 years, that the person who has the 25 pack/years and didn't
5 quit as compared to a quitter with 20 years quit and two and
6 a half pack/years, would be 91 percent more likely of dying
7 of lung cancer.

8 Q. You said that kind of fast. It was hard for me to
9 follow. First of all, it didn't look to me like in the
10 chart where you were speaking some of that information
11 appears. So I guess this chart --

12 A. The chart is a summary of some results that are
13 included in the document attached to it.

14 Q. Sure. And so that 90 percent comes from a
15 specific population group, as I understand it, right?

16 A. Well, it comes from a particular individual who I
17 plug into the equation I estimate from all people. But I
18 put in particular characteristics.

19 Q. Let me list those characteristics. First of all,
20 it's a female?

21 A. It's a female. All females.

22 Q. And it's 25 pack/years. And what else?

23 A. Let me make certain --

24 Q. Oh, she's 38?

25 A. Yes. Actually, I'm looking at it, it's 40.

00094

1 Q. 40? Okay. What else, if anything?

2 A. And it's -- that's it.

3 Q. Okay. Now, you are comparing that to who? That's
4 what -- that's where I kind of lost you.

5 A. I'm comparing it to a woman who is 40 years old
6 and who has two and a half pack/years.

7 Q. Why did you pick that?

8 A. And 20 years of quitting.

9 Q. That's where I got really confused. You say the
10 comparison person has two and a half pack/years but has quit

11 for 20 years?
12 A. Yes.
13 Q. I don't -- that doesn't compute somehow. I don't
14 understand what you're saying.
15 A. Well, a quitter has a certain pack/year history
16 and that matters. How much they smoked back when they were
17 smoking matters. And how long it's been since they quit
18 smoking also matters.
19 Q. So are you saying you take the 20 years they quit
20 and --
21 A. And whatever they smoked that cumulatively in
22 terms of pack/years when they were a smoker --
23 Q. Gets reduced mathematically? Is that the basic --
24 is that what you're saying?
25 A. That's right. The effect of it gets reduced

00095

1 mathematically by years quit.
2 Q. So they might have been, hypothetically, a 25
3 pack/year person, but at some point if they lived long
4 enough, by spreading out all those cigarettes they smoked
5 during the 25 pack/years down to the 25 pack/years plus 20
6 years of no cigarettes, that will come down to a much lower
7 pack/year number?
8 A. Correct. At some years it cancels out, and
9 statistically the two are present.
10 If you look at this same chart where there's
11 something called a never versus a quitter, you find that if
12 you define a quitter as a person who had two and a half
13 pack/years when they smoked and quit for 20 years, that they
14 would have a risk of 1.09 and a never has a risk of 1, and
15 statistically the difference between a 1.09 and a 1 is
16 zero. There's no statistical difference between those two
17 numbers. And therefore, the relative risk of a light smoker
18 who has quit for 20 years and a never are exactly the same
19 statistically. That's the first number you see up there,
20 the 1.09.
21 Q. I thought I understood you, but now I'm not so
22 sure because of something you just said.
23 This two and a half pack/years, that's a result of
24 no cigarettes for 20 years. That's not what she was smoking
25 20 years ago?

00096

1 A. No. The two and a half pack/years -- let's
2 suppose somebody smoked one pack of cigarettes a day for two
3 and a half years or they smoked a half a pack of cigarettes
4 a day for five years.
5 Q. All right.
6 A. They would have two and a half pack/years of
7 smoking --
8 Q. Right.
9 A. -- exposure.
10 Q. All right.
11 A. Now they quit. Or let's suppose then they quit
12 after that two and a half pack/years. They still have two
13 and a half pack/years of exposure. It's increasing the
14 relative risk.
15 However, the years quit is reducing the relative
16 risk. At some point the reduction from years quit cancels
17 out statistically the relative risk for the initial
18 exposure. And the calculation that's summarized here where
19 it calls -- where it defines a former and a current, I could
20 do this for any kind of individual in terms of age or any
21 kind of individual in terms of pack/years or any kind of

22 individual in terms of years quit. I happen to pick two and
23 a half pack/years and 20 years quitting as my former, and 25
24 pack/years and not quitting as my current, and it's all for
25 women and it's all for women age 40.

00097

1 Q. Why did you pick any pack/years? Why did you pick
2 the two and a half or any other? Why didn't you just say
3 never? Any difference statistically?

4 A. Well, there is a difference statistically in that
5 if I did the calculation of the relative risk of a current
6 smoker versus a never, the current smoker would have 100
7 percent of the risk. When I do the calculation of a current
8 smoker relative to a never -- I'm sorry, not a never. If I
9 do the calculation of a current smoker relative to a former,
10 I have to define the former somehow to find out how much
11 greater risk there is from a current smoker or how much less
12 risk there would have been if the person had quit earlier in
13 their life.

14 So the 90.93 percent is a number that you
15 calculate looking at a current smoker versus a former
16 smoker, but you have to do it specifically within the
17 context of characteristics you plug in, age, smoking
18 intensity and years quit.

19 Q. Well, let me try to get at this exhibit with two
20 more questions. First of all, this comparison you made of
21 relative risk that you went through with me, female, 25
22 pack/years, 40 years old versus female, two and a half
23 pack/years, 40 years old, what was the relative risk of the
24 first group, first person?

25 A. The first person --

00098

1 Q. I mean you're comparing it to the second person, I
2 take it?

3 A. Well, I'll do that too for you, if you like. But
4 the first person, if I compare the relative risk of both of
5 those to a never, which is what I've done in this table, the
6 relative risk of a current 25 pack/year person who doesn't
7 quit or hasn't quit up to that point compared to a never is
8 16.

9 Q. All right. And what is it compared to the other
10 lady?

11 A. The person who smoked two and a half pack/years
12 and has quit 20 years, that person has a relative risk
13 compared to a never of 1.09.

14 Therefore, the difference between a quitter with
15 those characteristics and a current with the characteristics
16 that I've postulated is what I show in here as the 91
17 percent greater risk is attributable to continuing to smoke
18 during that 20 years versus quitting during -- at the end of
19 let's say some initial period of smoking that resulted in
20 cumulative exposure of two and a half pack/years.

21 Q. Now, I still have to tell you I don't understand
22 what this two and a half pack/years is.

23 Is this female that you're talking about with the
24 two and a half pack/years -- is this a female who 20 years
25 ago had two and a half pack/years?

00099

1 A. And does today.

2 Q. Because you don't reduce it?

3 A. Pack/years are there. They're whatever they are.

4 Q. Okay. I thought in an earlier question --

5 A. You can increase it by continuing to smoke. But
6 if you're a quitter, your pack/years are whatever you've

7 inherited, what you had at the point you had it.
8 Q. Okay. So that takes care of Exhibit 10. Exhibit
9 11 is the same routine except a different group?
10 A. It's the 50,000 group versus the 60,000 group.
11 Q. Right. Okay. Now, what's next that we marked, if
12 anything?
13 A. I don't know that we've marked anything else, but
14 I can tell you what's next in the pile.
15 Q. All right. And that's this one here, which I will
16 make, what is it, 12?
17 MS. EILERAAS: 12.
18 MR. BROWN: Q. And what is it?
19 A. 12 is a refinement on what we called the 60,000
20 sample that we've been discussing since the break. And the
21 refinement is that the results that are shown that we've
22 been -- the results that we've been discussing look at the
23 pack/year exposure in five pack/year increments. And I find
24 that there is no statistically significant risk when we look
25 at, let's say, a particular category: Formers versus
00100
1 nevers, or current versus nevers. I find that there is no
2 statistical difference between a five pack/year range, a 10
3 pack/year range, a 15 pack/year range, which is consistent
4 with the literature. But I'm testing for each of those
5 things separately. And there is some statistical reasons
6 why if you find individual pieces not being statistically
7 significant what you should do is to put all of them
8 together and say "I'm going to look at 15 years or less."
9 Or 10 pack/years or less. Not these five-year increments
10 that I'm looking at.
11 So I repeat the analysis that I show in the first
12 two instances where I have looked at every five pack/year
13 group separately and use it to inform where I would put a
14 break where I look at 15 pack/years or less, 10 pack/years
15 or less in these different categories. And those are the
16 statistical results that are based upon that refinement.
17 Q. What are the statistical differences?
18 A. There are no differences in terms of the relative
19 risk calculations. There are differences in the
20 interpretation of the statistical test of significance for
21 the coefficients that are included in the equation. Because
22 in the first group of equations in the two samples, I was
23 looking at the statistical significance within each category
24 separately. And in the second group -- and I do it two
25 different ways, that's why there are four of them, two for
00101
1 each sample and two different ways -- and the second group
2 I'm looking at the break in the data and saying "I know that
3 there is no statistical difference between five pack/years
4 and 10 pack/years and 15 pack/years among quitters relative
5 to current." That is, the effect of quitting doesn't matter
6 between whether it's five, 10 or 15. They all look better
7 than currents.
8 But instead of looking at each of them as a
9 separate coefficient with its own test of significance, I
10 say "Let me just look at 15 or less all combined together."
11 Or 10 or less if that's what -- where the break is in a
12 particular set of experiments or runs all together, so I'm
13 not trying to have the test be as strong as when it is
14 applied to each of the coefficients when I know that in fact
15 none of them are statistically different from each other.
16 So I do a separate test to see whether I find the
17 same result when I don't try to make the computer look so

18 hard at differences when it's telling me the statistics are
19 telling me there really aren't any differences there.
20 So it's a test that statisticians do to make
21 certain that we're not making a mistake in interpreting the
22 first set of results. And this is therefore a test to see
23 if we're making a mistake, and I can summarize it by saying
24 these tests are consistent with the first results,
25 therefore, I didn't make a mistake in doing the first

00102

1 results as a statistical test.

2 Q. Another question about Exhibit 10. That 90.93
3 percent in the lower right-hand corner.

4 A. Yes.

5 Q. And you converted that to a 91 percent greater
6 risk. Did I understand that to be that the female that had
7 the 25 pack/years, current smoker, 40 years hadn't quit
8 compared to the female two and a half pack/years --

9 A. That had quit 20 years ago.

10 Q. Okay. Was 91 percent higher?

11 A. Yes.

12 Q. Okay. What's next? That probably would be the
13 same as 12, except it's a different group?

14 A. This is the second sample done the same way.

15 Q. Okay. What's next?

16 A. There were some differences in the two samples in
17 terms of whether the split should be as I did them in those
18 two groups or whether I should always look at 3's or always
19 look at 2's, so I did the same results looking at the split
20 at 3's, meaning 15 pack/years or less or 2's, meaning -- I
21 guess, no, in all cases they're -- in all cases I looked at
22 15 pack/years or less to test whether or not I was
23 misinterpreting the data. Because I did find that there
24 were some cases where going from 10 to 15 pack/years was
25 starting to show up statistically, and I wanted to have a

00103

1 test to see if I was overinterpreting the value of quitting,
2 and these results confirmed that I wasn't overinterpreting
3 the value of quitting, because they come to the same
4 conclusions that I had drawn.

5 Q. How many years does it take this female who quit
6 to get to the point where they're normal, they have the same
7 risk as a never? Or almost the same?

8 MS. EILERAAS: Objection. Vague. You can answer.

9 THE WITNESS: The individual who had a two and a
10 half to five pack/year experience 20 years ago is
11 statistically returned to a -- the risk of a never after 20
12 years.

13 MR. BROWN: Q. It takes 20 years?

14 THE WITNESS: It doesn't.

15 MS. EILERAAS: Objection. Mischaracterizes.

16 THE WITNESS: What I'm saying is a person who had
17 two and a half or -- two five pack/years of cumulative
18 tobacco exposure and has quit 20 years, I've determined that
19 there's no statistical difference between that individual's
20 relative risk and the relative risk of a person who never
21 smoked.

22 MR. BROWN: Q. I got that.

23 A. I did not do a calculation to determine at what
24 point there would actually be a break and you'd go from some
25 statistical difference from a never, in other words, I

00104

1 didn't do the calculation to say is it five years, is it 10
2 years in this data that I intend to rely upon.

3 I know the literature says that you return after
4 10 if you are a moderate smoker and after 15 if you're a
5 heavy smoker. I didn't do that test with this data in a way
6 that I intend to rely upon it from my analysis of CPS-II. I
7 looked at it, found the same results that are out there. My
8 conclusions therefore are no different from what's out
9 there.

10 I tried to do something a little bit more
11 sophisticated by bringing in pack/years and years quit
12 together, and that's the nature of the analysis that I did.

13 Q. You didn't do an analysis to see what the relative
14 risk would be at five years, 10 years, 15 years, whatever?

15 A. I did do it, but it's not something that I intend
16 to rely upon my analysis of CPS-II to reach conclusions.
17 Instead, I would rely on either the Surgeon General report
18 or other tobacco cessation literature that is included in
19 the package. And therefore, since I found the same results
20 they found doing what they did, I'm just confirming that
21 their interpretation is consistent with CPS-II, and
22 therefore I got the same result. I didn't bother to include
23 it because I'm not going to rely on my own analysis when I
24 can use their analysis.

25 Q. But I want to get all your opinions. So you are
00105

1 prepared to give an opinion as to what the relative risk
2 would be of a woman who had a 25 pack/year after quitting
3 for various number of years, right?

4 A. I guess I could do that.

5 Q. So --

6 A. I don't know that I'm going to do that, but I
7 could do that from the analysis that I've done.

8 Q. And this is based upon -- you say based on
9 literature? Not your own analysis?

10 A. Well, there's a way of plugging in the
11 characteristics of individuals.

12 Q. I'm just asking you, it's based on literature, not
13 your own analysis?

14 A. No.

15 Q. That's what you just said in about a five-minute
16 answer.

17 A. That's not what I said.

18 MS. EILERAAS: I'm going to object.

19 Mischaracterizes his testimony.

20 MR. BROWN: If I had time I'd read it back and
21 show you that's what you did say. But go ahead. Give me
22 the gist of what you mean.

23 THE WITNESS: Okay. There are two ways of
24 reaching the conclusion that a person of a certain age and
25 smoking history --

00106

1 MR. BROWN: Q. This is not what I asked you.

2 A. Well, I have to -- you have to let me answer.

3 Q. No.

4 MS. EILERAAS: Let him answer the question.

5 MR. BROWN: Q. I'm not going to stay here the
6 rest of the night getting answers to questions I don't ask.
7 Let me make the question clear so it's limited.

8 A. The answer is you did not correctly characterize
9 my testimony.

10 MR. BROWN: Withdraw the question.

11 Q. Let me ask the question. Try to follow my
12 question to see that it has some limitations. It isn't as
13 broad as you're interpreting them.

14 You are prepared to give an opinion, as I
15 understand it, from whatever source, that -- as to what the
16 relative risk would be at the end of quitting for various
17 selected years? That's true, right?

18 A. Yes.

19 Q. Okay. And is that based upon females, 25
20 pack/years?

21 A. It could be.

22 Q. Okay. Well, let's take 25 pack/years, female.
23 What's the relative risk at three years?

24 A. I haven't done that calculation yet, but I could
25 do it from --

00107

1 Q. What's five years?

2 A. I haven't done that one yet, either.

3 Q. Have you done it for anything?

4 A. I haven't done that calculation that way. That's
5 what I was trying to tell you. I could do it from my
6 analysis or I could do it from the literature and I'd get
7 the same answer. But I haven't done it yet from the
8 analysis.

9 Q. I just want your opinion.

10 A. For my analysis.

11 Q. I just want your opinion. I don't care if it's
12 based on literature --

13 A. You don't care where the opinion came from?

14 Q. No, I don't care.

15 A. So ask me a question where you don't care where
16 I --

17 Q. Three years. Quit three years, female, 25
18 pack/years.

19 A. Reduced risk, but I don't know by how much.

20 Q. Five?

21 A. Reduced risk, but I don't know by how much.

22 Q. 10?

23 A. 10, if the person was a moderate smoker and didn't
24 inhale deeply, returning to a place where you're not
25 statistically different from a never.

00108

1 Q. And that would be true all the way up, then, from
2 10?

3 A. After that, 10 or more.

4 Q. What's the difference between 10 and 20? Just
5 insignificant statistical differences?

6 A. Generally speaking, the difference between a 10
7 and 20 in terms of when you subtract them both from a never,
8 it's a statistically insignificant difference.

9 Q. Okay. Next number, what have we got? What's this
10 one (indicating)?

11 A. These are when I looked at the same results that
12 I -- we've just discussed, but I can strain all of the cases
13 to be 15 pack/years or less.

14 Q. What's that? 13?

15 MS. EILERAAS: I think we're on 14 now.

16 MR. BROWN: 14? Okay.

17 Q. And the next one is 15. What's that?

18 A. That's the other sample doing the same thing.

19 Q. Okay. What have you got left over there? What's
20 that?

21 A. This is Mr. Whitteker's employment history that I
22 gleaned from his deposition and from the two not always
23 consistent plaintiff responses to the same question, or
24 discussion of the same question.

25 Q. Plaintiff responses? What plaintiff?

00109

1 MS. EILERAAS: If I can clear it up. They're
2 footnoted at the bottom there. I think is Kaiser Cement's
3 interrogatory responses.

4 MR. BROWN: You're talking about interrogatories?
5 Okay.

6 THE WITNESS: And the other is the response to
7 order whatever number it is at the bottom.

8 MR. BROWN: Q. How do you intend to use 16 in
9 your testimony?

10 A. 16 tells me something within a reasonable degree
11 of certainty, not statistical certainty, but reasonable
12 degree of certainty what Mr. Whitteker's exposure was to
13 asbestos from directly handling asbestos or working with
14 asbestos in the different jobs that he might have had.

15 Q. Where did you get this information?

16 A. The information --

17 MS. EILERAAS: Objection. Asked and answered.

18 THE WITNESS: It depends on what you mean by
19 which?

20 MR. BROWN: Q. Sure. Where did you -- what
21 information do you draw on to determine what kind of
22 exposure he would have on these various jobs that he had?

23 A. Well, some of those jobs he stated quite clearly
24 on his deposition that he didn't have any involvement with
25 asbestos. Others he stated that he didn't directly handle

00110

1 asbestos but others did. And in a couple of instances he
2 stated that he handled certain kinds of tasks for which
3 asbestos was involved, like cutting cement pipes that might
4 have had asbestos in them.

5 And therefore, it's a review of what he said in
6 his deposition and what -- and two responses that I've seen
7 in the record that had plaintiffs' names on them that
8 described his history, or at least I glean them to be
9 plaintiffs' names. Maybe the Kaiser response wasn't
10 plaintiffs, but I think it was.

11 Q. Do you have an opinion as to the quantity of
12 asbestos fibers on Troy Whitteker's clothes when he came
13 home from work at any point in time?

14 A. Some of those jobs he had no asbestos exposure and
15 wasn't working around asbestos individuals. He worked in a
16 plumbing, retail plumbing store. So I would say that my
17 opinion is that unless he picked them up in the outside air
18 or in the building he worked in, he would have none.

19 Q. Okay. And is it always none? Or is it -- does it
20 get a little higher than none on some of these jobs in your
21 opinion?

22 MS. EILERAAS: Objection. Vague.

23 THE WITNESS: On two of the jobs he admits or he
24 discussed I think it is one he had for a day or two and one
25 he had for a week or so that he was actually using material

00111

1 that had asbestos in it. So I would say that for less than
2 a two-week period he might have had some asbestos fibers.

3 MR. BROWN: Q. How about as a foreman at the
4 Mandalay steam plant?

5 A. Mandalay steam plant is an electric utility
6 plant. There's evidence in that box that suggests that the
7 relative risk of an electric utility worker dealing with the
8 insulation exposure that such a worker would have compared
9 to an insulation worker is 85 percent less asbestos

10 exposure, because they state in that article that the
11 relative risk of an insulation worker, if it were 1, an
12 electric utility, steam plant worker would be .15.

13 Q. Okay. Let's move ahead here. I want to look
14 through the rest of this real fast. I guess what I'll do is
15 as I look at these, I'll put them face down if they're going
16 to go into the big pile.

17 MS. EILERAAS: Then we'll add them to the front of
18 the box again?

19 MR. BROWN: Yes.

20 Q. What is this document (indicating)?

21 A. This is a document that I pulled off the Internet
22 that I think was put out by the American Cancer Society that
23 describes the level of tar and nicotine in different types
24 of cigarettes.

25 Q. Is Philip Morris on there?

00112

1 A. Yes.

2 Q. Is RJR on there?

3 A. Yes.

4 Q. Okay. Did I mark that 17 already?

5 MS. EILERAAS: It's not marked. Do you want to
6 mark it 17?

7 MR. BROWN: Yes. Let's make it 17. Okay?

8 THE WITNESS: It says nicotine information. I
9 think in my information I said tar. I don't know whether
10 tar is on here or not, but -- yes, it has tar rating.

11 MR. BROWN: Q. And nicotine?

12 A. Um-hmm.

13 Q. What year does this relate to?

14 A. I pulled it out a couple weeks ago.

15 Q. So this is apparently current?

16 MS. EILERAAS: If you know.

17 THE WITNESS: Well, it's current on the web. The
18 problem with using the web is it doesn't date things.

19 MR. BROWN: Q. You've got something here that
20 deals with food and nutrition and lung cancer. Why did you
21 have that?

22 A. In my consideration of possible factors that you
23 see that I either circled or checked, I thought that there's
24 a lot of evidence that certain diets and certain food groups
25 might either increase or decrease the relative risk of dying

00113

1 from different kinds of diseases, including cancer. And I
2 pulled that out to get information of what in an academic
3 publication -- this is a textbook -- people were saying
4 about the subject. I ended up not using it, and I don't
5 intend to rely upon it in any of my statistical analysis,
6 but it's in my file for this case.

7 Q. Do you have an opinion as to the risk factors for
8 Leslie Whiteley, the lung cancer risk factors?

9 A. I've not done anything about Leslie Whiteley. So
10 I don't have any opinion about the risk factors that she may
11 have.

12 I do have an opinion about the risk factors I've
13 been talking about all afternoon: Age, gender, duration of
14 smoking, smoking intensity, years quit, those kinds of
15 factors. But I don't have an opinion about any other
16 characteristics that she might have, like the state she
17 lives in or the family history or any of her diet or any of
18 those other kind of things that are present.

19 Q. Okay. Here's one that says Family Contact
20 Exposure. I guess it's an article. It came from

21 somewhere. How did you use that?
22 MS. EILERAAS: Objection. Lack of foundation.
23 MR. BROWN: I just figured if it's from the box he
24 used it.
25 THE WITNESS: This is an article dealing with
00114
1 asbestos, not tobacco. So we're not talking about
2 secondhand smoke, we're talking about potential exposure
3 to -- it turns out amosite asbestos exposure -- amosite
4 asbestos factory workers.
5 MR. BROWN: Q. How did you use it?
6 A. Just part of my general background and reading
7 about what people were saying about the issue of potential
8 increased risk of some diseases among family members. And I
9 believe the conclusion reached here is that there might be
10 some increased risk of either mesothelioma or pleural
11 plaques but not lung cancer in this particular group of
12 people.
13 Q. Okay.
14 MS. EILERAAS: Do you want that one marked as next
15 in order?
16 MR. BROWN: No.
17 Q. You've got one here on -- an article it looks like
18 Lung Cancer Incidents Among Previous Employees of Asbestos
19 Mine in Relationship to Tobacco Smoking. How did that
20 figure into what you did?
21 A. That's a Ph.D. thesis that dealt with the issues
22 of how smoking and asbestos may both contribute to
23 particular kinds of incidences of disease. And as I recall,
24 it was done for Western Australia.
25 Q. Okay. How did you use the Epidemiology of Cancer,
00115
1 by Burke or edited by Burke?
2 MS. EILERAAS: Objection. Lack of foundation.
3 THE WITNESS: This is an article that deals with
4 the issue of cessation, age and sex. And it's part of my
5 background of literature and analysis that supports the
6 conclusions that I've been articulating, as well as
7 creates -- created the basis for forming my opinion. For
8 example, it says on page 93: After 10 to 15 years, the risk
9 of ex-smokers is little more than the non-smoker, although
10 the end point attainable varies somewhat with the duration
11 and intensity of exposure during the smoking period.
12 MS. EILERAAS: Are you going to mark that one?
13 MR. BROWN: No. I just got this out of order, and
14 I'm not quite sure. So I'll try not to do that any more.
15 MS. EILERAAS: That's not going to be a big deal.
16 MR. BROWN: Q. Biological Indicators of
17 Chrysotile Exposure. Did the type of the asbestos that the
18 father was exposed to or the son -- or the husband make any
19 difference to you in what you were doing?
20 A. It makes a difference to me in terms of what the
21 relative risk might be, yes.
22 Q. Okay. You've got some depositions in here. I
23 don't need to have them copied. But do you know what's in
24 here without my --
25 A. In terms of the depositions?
00116
1 Q. Yes.
2 A. Well, I know what depositions I read.
3 Q. Are they all in here?
4 A. Yes.
5 Q. And I think I saw Troy Whitteker, right?

6 A. Yes.
7 Q. Rebecca -- in-law?
8 A. Rebecca whatever, yes.
9 Q. Who else?
10 A. Dean Moore.
11 Q. Okay.
12 A. And Leslie Whiteley and her husband. I don't
13 remember his name.
14 Q. Current husband, Leonard?
15 A. Yes.
16 Q. Other than health -- asbestos-related stuff and
17 those depositions, do you know of anything else in this box?
18 MS. EILERAAS: Well, we're going to mark the box
19 as a group exhibit.
20 MR. BROWN: I may not. I may not. Depending what
21 else is in there.
22 THE WITNESS: The answer to your question is that
23 most of the documents are related either to smoking
24 cessation or low-dose asbestos exposure. And we've been
25 talking about asbestos in one context, but there's another
00117
1 context in which I analyzed it and that's included in that
2 box.
3 MR. BROWN: Q. Okay.
4 A. And that's the asbestos exposure in buildings,
5 which is one of the places where -- one of the topics for
6 which there's a considerable amount of information
7 calculating potential relative risk from building or outdoor
8 air asbestos exposure.
9 Q. Have you formed an opinion as to whether asbestos
10 played any role in contributing to the lung cancer of Leslie
11 Whiteley?
12 MS. EILERAAS: Objection. Vague and ambiguous.
13 THE WITNESS: No.
14 MR. BROWN: Q. This Selikoff article, do you know
15 which one it is?
16 A. It's a book he wrote, actually. I think it's --
17 well, it says Gift, 1983. It's the principal textbook or
18 text or book, whatever you want to call it, that he wrote on
19 asbestos-associated disease in the United States. And I
20 believe it was in the early '80s.
21 Q. I think the next thing I came out here with was
22 the 1985 report of the Surgeon General. Is that correct?
23 Is that all that is?
24 A. That's all it is.
25 Q. It had a portion in there that dealt with
00118
1 cessation?
2 A. I think there might have been some discussion, but
3 there was a 1990 report I think just on cessation that I
4 think is also in that box.
5 Q. Okay. That must be this one? '89?
6 A. This is the one that dealt with some asbestos and
7 smoking exposure.
8 Q. Okay.
9 A. In 1985.
10 Q. I'm going to mark these three. Here's one that's
11 1990, I guess, hmm? That's the one you relied upon?
12 A. Well, I relied on all three of them if they're in
13 the box.
14 The 1990 is called The Health Benefits of Smoking
15 Cessation.
16 1989 is called Reducing the Health Consequences of

17 Smoking, 25 Years of Progress.
18 And 1985 is called Cancer and Chronic Lung Disease
19 in the Workplace, and the superheading above that is The
20 Health Consequences of Smoking. So '85 deals with workplace
21 exposure to potential factors that are associated with
22 chronic lung disease and smoking and how they might interact
23 or both be present in terms of certain diseases that are
24 associated with chronic lung problems. That's the '85 one.
25 '89 is a summary of 25 years of progress since the

00119

1 Surgeon General has been warning people about smoking,
2 beginning in 1964.

3 And 1990 is a special report just on the smoking
4 cessation issue.

5 MR. BROWN: Okay. I want to mark those, but I
6 don't know if I want it -- I'm not going to mark any of
7 these. I'm not even going to have them copied.

8 MS. EILERAAS: Okay.

9 MR. BROWN: We'll mark these. So 18, 19 and 20.
10 And 18 is, for the record, the 1985 Surgeon General's
11 report.

12 1989 Surgeon General's report is No. 19.

13 And the 1990 Surgeon General's report entitled The
14 Health Benefits of Smoking Cessation, that's marked Exhibit
15 20. And we won't give those to the reporter but you'll copy
16 one, make one copy and send it to me and you'll keep one and
17 bring it to trial. Okay?

18 MS. EILERAAS: Okay.

19 MR. BROWN: That sounds like a deal.

20 Q. Let me find Exhibit 2, I think. I just want to
21 look at your designation here.

22 Do you have a conclusion on whether there was
23 significant exposure to asbestos by Leslie Whiteley from any
24 source?

25 MS. EILERAAS: Objection. Asked and answered.

00120

1 THE WITNESS: I have a conclusion that the work
2 experience exposure of her father and her first husband from
3 their own depositions is relatively small, and the exception
4 to that might be some of the work that was taking place in
5 the engine room when her first husband was on board ship.
6 But he also reported that he had his clothes washed and
7 cleaned and he always showered before he ever saw her, all
8 done on ship by somebody other than his wife.

9 All of that would lead me to conclude that the
10 background asbestos exposure that they both had is smaller
11 than the background exposure that I would expect to find in
12 the households and in the ambient air in studies that were
13 done in Quebec for neighborhood effects.

14 And if I take what I think of as high numbers,
15 namely, the background from Quebec and apply them to the
16 OSHA lung cancer risk, relative risk assessment model, I
17 come to the conclusion that the relative risk even at levels
18 that are way above what I think they would be on the basis
19 of what I've read in the record for those two gentlemen
20 would be way below one percent higher relative risk than if
21 they didn't have that I think elevated level of exposure
22 which my assumptions for the calculation allowed me to
23 perform.

24 Since her exposure, that is, Ms. Whiteley's
25 exposure was probably less than them since she only got it

00121

1 from them, then her less than one would be even less than

2 less than one, and therefore, on the basis of a calculation
3 that I wouldn't make for Ms. Whiteley, because I don't know
4 all of the other things that she may have been exposed to or
5 may have come in contact with in her lifetime, her drinking
6 water, her activities outside of being involved with her
7 father and her first husband. But if that's the pathway by
8 which she was exposed, I would do a calculation that would
9 fit a person with those characteristics, but I can't claim
10 that I know her characteristics well enough to be able to
11 make the calculation and assign it to her. But I could make
12 it for a person like that using the approach that I just
13 described.

14 Q. The number 5 subject, which is listed on page 6 of
15 Exhibit 2 describing what you're going to testify about
16 states: "His analysis of the epidemiological data assembled
17 by the American Cancer Society known as the Cancer
18 Prevention Study II.

19 Have you given us -- described to us all of the
20 analysis of that data that you have done?

21 A. No.

22 Q. What else have you done?

23 A. I've given you all of the analysis that I intend
24 to rely upon. I've looked at other factors in ACS-II, but I
25 don't intend to rely upon them.

00122

1 Q. Okay. Number 6. It says: Non-tobacco related
2 factors associated with lung cancer risk.

3 Do you have an opinion as to what the non-tobacco
4 related factors associated with lung cancer risk were,
5 first, for Leslie Whiteley?

6 A. I don't have any of those factors for
7 Ms. Whiteley.

8 Q. So you're not going to testify to what's set here
9 in the area described as number 6?

10 A. I'd say that --

11 MS. EILERAAS: Other than asbestos which we've
12 been talking about?

13 MR. BROWN: Okay. Asbestos would be fair.

14 Q. Anything else?

15 A. I'm not planning on -- when this was put together,
16 number 6, I thought I might have considered things like diet
17 and food additives, alcohol consumption, other contributing
18 factors that are potentially confounding factors, and I'm
19 not at the point in my analysis where I am able to draw any
20 conclusions about the factors other than age, smoking
21 history, tobacco intensity and/or asbestos. And therefore,
22 I'm not at the point where I can reach any conclusion, and I
23 do not plan to do any additional work on any of these
24 subjects that might be included in 6 that I had in mind when
25 I wrote this. And therefore, I would modify this or

00123

1 eliminate number 6 unless we need to keep it because it's
2 referring to points that were made previously in 1 through
3 5. I think 6 is now either unnecessary because it's
4 redundant, and as I said earlier, I'm not planning on doing
5 any additional work that would lead me to try to sneak back
6 in number 6.

7 MR. BROWN: Okay. That's it. I am finished.
8 And I have an envelope here with checks in it. How many
9 hours are we talking about here? I think we started at
10 2:00. What time is it?

11 MS. EILERAAS: It's 5:35.

12 MR. BROWN: 2:00 to 5:00 is three. So we've got

13 three and a half hours?
14 MS. EILERAAS: I think that's right. Are we off
15 the record?
16 MR. BROWN: We are off the record.
17 (Whereupon the taking of the Witness' testimony
18 was concluded at 5:37 p.m.)
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DATE

SIGNATURE of the WITNESS